Metis Post-Secondary Students and the Demotivating Effects of Possible Prejudice

A Dissertation Submitted to the College of
Graduate Studies and Research
in Partial Fulfillment of the Requirements
for the Doctor of Philosophy Degree
in the Department of Psychology
University of Saskatchewan
Saskatoon
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ABSTRACT

There is a wealth of research showing the demotivating effects of prejudice on the academic achievement of historically marginalized social groups. However, there is a lack of research involving Metis students. The purpose of the present study was to examine how the task performance and attitudes of Metis post-secondary students can be influenced by prejudice. Data from 165 Metis post-secondary students were analyzed. The participants were asked to role play applying for a job with a non-Aboriginal employment manager, who may or may not have held negative attitudes towards Aboriginal people. The study involved a 2 X 3 research design. The participants were categorized into two groups: High and low Metis identifiers. They were randomly assigned to one of three conditions: (1) Prejudiced (manager held negative attitudes about Aboriginal people); (2) Unknown attitudes (students were not given any information about the manager's attitudes), and; (3) Non-prejudiced (manager thought favourably about Aboriginal people). The participants completed a battery of questionnaires, the scores of which functioned as dependent variables: the Controlled Oral Word Association Test (COWAT) was used to assess verbal fluency, and to infer motivation; the Selection Attitudes (SA) Scale was used to assess the students' expectations of being hired, the value they placed on being hired, their motivation to perform the verbal task, as well as their beliefs about the manager's sense of fairness; and the Stereotyping of Whites (SW) Scale which assessed the extent to which the participants stereotyped the non-Aboriginal employment manager. The Metis Identity (MI) Scale was used to categorize the participants into high or low Metis identifiers. As a preliminary procedure, a psychometric investigation was conducted on the Metis Identity (MI) and Selection Attitudes (SA) Scales. The investigation found the MI Scale to be a reliable measure of high or low Metis identity. The SA Scale consisted of four subscales: expectations, valuing, motivation, and fairness. The valuing subscale was shown to be unreliable and therefore removed from the SA Scale. The primary analysis tested six research hypotheses, which considered the extent to which the high and low Metis identifiers responded to the questionnaires within each of the three research conditions (Prejudiced, Unknown attitudes, Non-prejudiced). It was hypothesised that, while the reactions of the high and low Metis identifiers would not differ significantly in the Prejudiced condition (i.e., where the possibility of prejudice was likely and imminent), the reactions of the high identifiers would be significantly more negative than the reactions of the low identifiers in the Unknown and Non-prejudiced conditions (i.e., where the possibility of

prejudice was either ambiguous or unlikely). The hypotheses were not supported. Although there were no significant interaction effects that would support the hypotheses, there were several main effects for both the Metis identity and Prejudice factors. The high Metis identifiers reported more motivation and overall optimism about being hired than did the low identifiers. There were also several main effects for the Prejudice factor. Participants in the Prejudiced condition reported less of an expectation of being hired than those students in either the unknown attitudes or non-prejudice conditions. The participants in the Prejudiced condition also reported less motivation to perform the verbal fluency task to the best of their ability than did the participants in the unknown attitudes condition. The participants in the Prejudiced condition also stereotyped the manager more negatively than those participants in the other two, less threatening conditions. Even though the participants in the Prejudiced condition reacted more negatively to the possibility of prejudice than did those in the Unknown attitudes and Non-prejudiced conditions, whether the participants were high or low Metis identifiers did not significantly influence their reactions. In addition to the primary analyses, multiple regression analyses were performed with the COWAT and motivation as dependent variables. The analysis found that length of post-secondary education, reported motivation, and perceived fairness predicted the COWAT. The Selection Attitudes (SA) Scale and Metis Identity (MI) Scale predicted reported motivation. The study showed that Metis post-secondary students can react negatively to perceived prejudice, especially when it appears to be likely and imminent. However, their reactions may have little to do with whether they are high or low Metis identifiers. Since the perceived possibility of prejudice can influence Metis post-secondary students, it is important for non-Aboriginal educators to be aware of their attitudes and beliefs about Metis students in order to better appreciate how these beliefs can influence their students for the better or worse.

ACKNOWLEDGEMENTS

I first need to thank my supervisor, Dr. Steve Wormith, for all of his help. He was always patient and encouraging. I also thank my committee consisting of Dr. Terry Wotherspoon, Dr. Mark Olver, Dr. Tammy Marche, and Dr. Kathleen O'Reilly. Your time, experience and advice was appreciated and made my dissertation more than it would have been without your help. I would also like to thank everyone from the Gabriel Dumont Institute who gave my study their approval, and who helped me with data collection. I would also like to thank the students who agreed to be surveyed. To my wife I would like to extend my gratitude for always standing shoulder-to-shoulder with me. I am a lucky man.

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Chapter 1.

Metis Post-Secondary Students and the Demotivating Effects of Possible Prejudice

In 2012, the University of Saskatchewan (U of S) had 16,851 students. Of this total, 1,723 (10.2%) were self-declared Aboriginal students.[1] However, a significant proportion – as much as 45 per cent of Aboriginal students, which includes First Nations, Metis, and Inuit – are not likely to graduate (Zerr, 2013). According to census data obtained from the U of S, in 2011/2012, of those self-declared Metis students who entered a University program directly from high school (N = 641), the second year retention rate was 68.1%. The comparable retention rates for First Nations students was 53.3% (N = 812). For non-Aboriginal students, the second year retention rate was 79.9% (University of Saskatchewan Data Warehouse, 2013). Turning to the Saskatchewan Polytechnic, in Saskatchewan, in 2014, there were 13,470 students enrolled in the school's four campuses (i.e., Saskatoon, Moose Jaw, Regina, Prince Albert). Of the total enrolment, 3,291 students were self-declared Aboriginals (includes First Nations, Metis, and Inuit). However, the graduation rate for Aboriginal students was about 52 percent, which was about 20 percentage points lower than the overall graduation rate (Warren, 2014).

It has become a truism to declare that the differences in levels of educational attainment in Canada is one of the major forces which exacerbates economic and social inequality (Howe, 2011). The various explanations used to interpret the educational achievement gaps that may exist between social groups cluster into five major categories: historical, family, community, governmental, as well as personal-level explanations. The present study adopts a social psychological approach and examined how being the potential victim of prejudice can influence Metis students' task performance, their expectations, motivation, valuing of an outcome, as well as their opinions about a potential non-Aboriginal victimizer.

The following literature review will chronicle the history of the Metis people, compare educational and earning levels between the Metis and other Saskatchewan residents, then discuss the attitudes that many Canadians harbour towards Aboriginal people. The literature review will then examine the possible effects that stereotyping, negative expectations, and prejudice can have on task performance. The review will also consider how one's commitment to one's

[1] In the United States, the term "native American" is commonly used to describe Aboriginal peoples. In Canada, the term "Aboriginal" or "Indigenous" is generally preferred to "Native" (Indigenous Foundations, 2009).

Metis social identity can affect how the individual perceives and reacts to the possibility of prejudice. As a Metis graduate student, the present researcher is interested in learning the extent to which negative attitudes about Aboriginal people can influence the academic performance of Metis post-secondary students. It is also important for educators and educational administrators to appreciate how their beliefs and attitudes about Metis students can influence students for the better or worse.

1.1 The Metis People

The term "Metis" refers to the distinct ethnic identity that resulted from the union between the indigenous population and the European newcomers in what is now Canada (Aboriginal Foundations, 2009). There was once was a distinction between French Metis born of francophone fathers, and the Anglo-Metis descended from English or Scottish fathers. Today these two strands have essentially coalesced into one Metis tradition (Rinella, 2008). Although Manitoba is the birthplace of the Metis, the Metis homeland came to include regions of Manitoba, Saskatchewan, as well as parts of the northern United States, specifically Montana, North Dakota, and northwest Minnesota (Howard, 1965). Statistics Canada reported that, in 2011, 451,796 Canadians self-identified as Metis, which represented 1.4% of the total Canadian population (Statistics Canada, 2013b). In 2011, the Metis represented 8.0% of the population of the Northwest territories, 6.7% of Manitoba's population, and 5.2% of Saskatchewan's population. Among metropolitan areas, in 2012, Winnipeg had the highest population of Metis: 46,325. Winnipeg was followed by Edmonton (31,780), Vancouver (18,485), and Calgary (17,040). While Saskatoon's census metropolitan area (CMA) population was 265,259 in 2012, its Metis population was 11,520 people (4.3%). Although most contemporary Metis are likely to live in or near smaller and larger urban areas, there are a number of predominantly Metis communities in the rural and hinterland areas of Canada, especially in mid-Canada from north-western Ontario across to the north-central Prairies. In Central Saskatchewan, three well-known Metis communities include Duck Lake, Batoche, as well as Prince Albert and area. In 2012, Prince Albert had a population of about 35,000 people, of which 19.5% (or 6,825) were Metis (In addition, in 2012, nearly 21% of Prince Albert's total population consisted of First Nations people; Statistics Canada, 2013b.). In Alberta, there are eight Metis settlements which form a constitutionally protected land base in Canada. These eight communities consist of nearly 9,000 residents (Historica Canada, 2013).

Although the Metis were an independent people in the 19th century, and rose to resist the takeover of their homeland, the waves of immigration from Ontario, the United States, and Europe were too strong, and the Metis people were eventually defeated following a resistance led by Louis Riel during the Red River and Duck Lake Rebellions in Manitoba and Saskatchewan (Metis Nation of Manitoba, 2013). Although the days of armed resistance are over, the Metis have created various political organizations (e.g., The Metis Nation of Saskatchewan) to assert their political and legal rights.

Section 35 of the *Constitution Act, 1982* "recognizes and affirms" the "existing" Aboriginal and treaty rights in Canada. Aboriginal rights protect the activities, practices, or traditions that are integral to the distinct cultures of Canada's Aboriginal peoples (see *Report of Standing Senate Committee on Aboriginal People, 2013*). These rights extend to First Nations, Inuit, and the Metis peoples. In 2003, in the *R. v. Powley* (2 SCR, 2003) case, the Supreme Court of Canada (SCC) offered guidance to clarify the legal definition of "Metis" in order to identity a Metis rights-holder under s. 35 of the *Constitution Act*. Although the precise definition of "Metis" remains debatable and subject to refinement, the SCC outlined three broad factors or criteria to help identify Metis rights-holders: (1) self-identification as a Metis individual; (2) ancestral connection to an historic Metis community; and (3) acceptance by a Metis community. What is important about the Powley decision is that, in order to claim s. 35 rights, it is not enough to claim that one happens to have some Aboriginal blood flowing through one's veins. More importantly, one must acknowledge or recognize his or her social identity as Metis, and have a past and on-going relationship with a Metis community. In Saskatchewan, in practical terms, anyone who wants to become a full-fledged member of the Metis Nation can trace out the following steps: The individual can apply with the Metis Nation of Saskatchewan to become a card-carrying member of the Metis Nation. To become a member, the individual must be able to build a family tree that demonstrates an ancestral connection to a historic Metis community (e.g., Duck Lake, Batoche). Applicants must track their Metis history through to their parents and grandparents (even further back in time if possible). Birth certificates, baptismal and marriage certificates, as well as death certificates, can all be used to convince authorized representatives of the Metis Nation of Saskatchewan that the individual does indeed have a Metis heritage. If accepted, the individual will become a card carrying member of the Metis Nation, entitled to the

full menu of rights (related to land, hunting, education) granted by the Constitution and courts. The days when all one needed to do to be considered a Metis was simply to self-declare are over. Today, if one asserts a Metis right, the individual must be able to prove his or her Metis ancestry.

1.2 Education and Earning Levels

The positive relationship between education and income is well-established (Howe, 2011). The following reports both national statistics and Saskatchewan statistics.

Turning first to national statistics, data from the *2012 Aboriginal Peoples Survey* (APS) reported that 77% of Metis between 18 to 44 years of age had a high school diploma or equivalent in 2011. The 2012 APS also reported that 47% of Metis (aged 18 to 44) had post-secondary credentials, that is, a trades certificate, diploma, or degree above the high school level. The corresponding figure for the general Canadian population was 64%.

Turning to income, Statistics Canada (2011) reported that, nationally, between 2008 and 2011, the median income for Metis high school completers was $35,000. In contrast, the median income of Metis who had failed to complete high school was $25,000. For completers, higher education translates into higher median income: those Metis with a university degree reported a median income of $45,000. The non-Aboriginal income per capita was $47,200 in 2012.

Turning to Saskatchewan, Tables 1.1 and 1.2 below report the lifetime earnings of Metis residents of Saskatchewan by education level as well as the education differences between Métis and non-Aboriginal residents. The overarching message of Table 1 is that those Metis residents who have a high school diploma and who have continued their education beyond high school have largely closed the earning differences between the Metis and other Saskatchewan residents. A Metis male who is a resident of Saskatchewan who earns a bachelor's degree can expect to earn $1,119,361 more than if he had dropped out of high school; a female Metis university graduate can expect to earn $1,256,369 more than if she had dropped out of high school. The male Metis university graduate in Saskatchewan can expect to earn $ 423,371 more than if he had non-university post-secondary training only; a female Metis university graduate might expect to earn $727,036 more than if she had non-university post-secondary only training.

Table 1.1

Lifetime Earnings for Non-Aboriginal and Metis Residents of Saskatchewan by Education Level in 2010

	Non-Aboriginal		Metis	
Level of education	Male	Female	Male	Female
High school non-completer	$693,273	$349,189	$546,671	$260,104
High school diploma only	$984,773	$597,140	$975,225	$609,609
Non-university postsecondary only	$1,218,559	$748,057	$1,242,661	$789,437
Bachelor's degree or higher	$1,577,505	$1,453,503	$1,666,032	$1,516,473

Source: Howe (2011)

Although the above table paints a rosy picture for those Metis who choose to further their education beyond high school, there is a lingering education gap between Metis and non-Aboriginal Saskatchewan residents, especially at the "no high school" level and university level. Table 1.2 reports the education level differences for Metis and non-Aboriginal residents in 2010.

Table 1.2

Education Differences between Non-Aboriginal and Metis Residents of Saskatchewan in 2010

	Non-Aboriginal		Metis	
Educational attainment	Male	Female	Male	Female
No high school diploma	25.6%	20.1%	44.0%	37.8%
High school diploma	29.6%	28.7%	23.1%	27.0%
Technical school diploma	30.8%	35.1%	28.6%	27.6%
Bachelor's degree or higher	14.0%	16.1%	4.3%	7.6%

Source: Howe, 2011

The widest education gaps occurred at the "No high school diploma" level and the "Bachelor's degree or higher level." While Metis university graduates in Saskatchewan are able to close the lifetime earnings gap between themselves and non-Aboriginal residents, relatively fewer Metis residents are graduating from university as compared to non-Aboriginal residents. At the bachelor's degree or higher level, the gap between Metis males and non-Aboriginal males is 9.7 percentage points; the percentage point difference between Metis females and non-Aboriginal

females is 8.5. Combining males and females, the overall gap is 9.1 percentage points.

How does the unemployment rate vary with educational attainment? Regardless of ethnicity, high school non-completers typically have the highest unemployment rate; university graduates, the lowest. In Canada, in 2012, the unemployment rate for high school non-completers was 16.4%. For "high school only" Canadians, the unemployment rate was 8.8%. For university graduates (bachelor degree or higher), the unemployment rate was 5.8% (Statistics Canada, 2013a).

The findings of Tables 1.1 and 1.2 focus largely on the monetary benefits of education. But, in addition, there are also nonmonetary benefits to both the individual and society. From the individual's point of view, higher education is positively associated with greater job satisfaction as well as improved access to health and dental care (Howe, 2011). Increased education is also positively associated with engaging in healthier activities (e.g., exercising and not smoking). From society's point of view, increased education is negatively associated with rates of criminality, as well as government welfare expenditures. Howe (2011) argued that the total social benefit (including both individual monetary and nonmonetary benefits as well as external social benefits) of bridging the education gap in Saskatchewan (measured in 2011 dollars) is $90 billion. According to the Centre for the Study of Living Standards (2010), complete closing of the education and labour market outcome gaps in Canada by 2026 leads to a $36.5 billion increase in GDP in 2026; the cumulative benefits over the 2001-2026 period are estimated at $400.5 billion (2006 dollars), of which $179.3 billion can be directly attributed to an increase in educational attainment for Aboriginal people.

With so much on the line, it is obviously a wise decision for society to eliminate the university education gap (as well as the "no-high school diploma" gap) between the Metis and other Canadians. From the individual's point of view it is always a wise decision to continue one's education as far as he or she can. Without a post-secondary education, a Metis can expect to earn dramatically less than most other Canadians. But, with a higher education, the Metis individual can catch up to other Canadians and close the earnings gap. However, despite efforts by the federal and provincial governments as well as various Metis organizations to encourage the private sector to hire more Aboriginal people, and efforts to encourage Metis people to upgrade their education, certain differences persist, especially at the "no high school diploma" and "bachelor's degree or higher" levels.

1.3 Accounting for the Educational Achievement Differences

Why there are some lingering education differences between the Metis and other Canadians is not easy to explain. The differences are the end product of a complex process involving a number of personal-level, family-level, historical-level, as well as community- and government-level factors.

For the indigenous peoples of Canada, the arrival of the Europeans imposed a great deal of pressure upon their cultures, practices, and traditions, and operated in ways that were often antithetical to Aboriginal knowledge, teachings and way of life (Goulet & Goulet, 2008). One product of colonization was the Metis people. During the height of the North American fur trade in the 18th and 19th centuries, many British and French Canadian fur traders married First Nations and Inuit women, sowing the seeds for the development of a distinct Aboriginal people. The Metis people quickly became an important link between cultures. Since they were exposed to both Aboriginal and European cultures, the Metis were able to fill the area between the two cultures, and were valued for helping settle language and cultural issues. However, the "good times" shared between the Metis and the Europeans was short-lived. As the Government of Canada extended its reach across Canada, the allocation of land to the European immigrants caused conflict with those already living on that land. The Metis eventually united to stand up for their interests and protect their traditional way of life from a Canadian government intent on colonizing Canada from coast to coast. The end result of the period of armed resistance is known to all Metis people: armed resistance eventually transformed into determined political resistance as the Metis began to assert their interests and rights in the political and legal arenas of battle.

Historically, the Metis had an uneasy working relationship with a Eurocentric educational system. Although many Canadians primarily associate the residential school system with First Nations, many Metis children were forced to attend Indian residential schools. It is estimated that 150,000 First Nations, Inuit, and Metis children attended residential schools (CBC News, 2008).

In 1884, amendments to the *Indian Act*, 1876 were adopted which led to the creation of residential schools. The schools were predominately funded and operated by the Government of Canada and the Roman Catholic, Anglican, Methodist, Presbyterian, and United Churches (Anishinabek Nation, 2013). There were 20 such schools in Saskatchewan, including the Beauval Residential School, St. Michael's (Duck Lake), Onion Lake Anglican, as well as schools in Regina and Prince Albert.

For those Metis who attended residential schools, their experiences were basically the same as First Nations people. In their attempt to assimilate the Metis, governments pressured the Metis to abandon the Aboriginal side of their identity and thoroughly assimilate into the dominant culture. This meant moving into settler communities, exclusively speaking English or French, and accepting a Eurocentric education that completely ignored the interests of Aboriginal peoples (Aboriginal Healing Foundation, 2006). Many early Metis actively resisted often blatant attempts to educate the Metis out of them. Many Metis chose to distance themselves from Whites and flourish on their own in the bush. One obvious side-effect to the resistance of European encroachment was to become isolated from the mainstream settler culture. Of course, keeping the Europeans at arms-length also meant keeping the educational systems of the settlers at arms-length which, in the long-run, had helped create the initial educational and employment gaps between the Metis and other Canadians (Anuik, 2009; Giraud, 1986).

Although some Metis children attended residential school, early federal and provincial government policy excluded many Metis children from school for a simple reason: since the Metis did not hold title to the land and did not pay taxes, federal and provincial governments refused to accept responsibility for Metis education. Therefore, most Metis did not receive any government-funded education. The exceptions occurred when some residential schools placed Metis in their school systems to promote the assimilation of Aboriginal peoples, although they had no legislative authority to do so (Canadian Council on Learning, 2010). In Saskatchewan, it was not until the election of the Co-operative Commonwealth Federation (CCF) in 1944 that the Saskatchewan government accepted responsibility for the education of Metis children (Racette, 2010). Schools were constructed in many Metis communities, and within a decade all Metis children in Saskatchewan had access to an elementary education. Unfortunately, decades of isolation and government neglect were difficult to overcome. Despite the CCF's efforts, very few Metis graduated from high school, attended university, or participated in other post-secondary training. Continued ambivalence to the educational overtures of the White society helped relegate the Metis to the fringes of the ever-growing dominant society (Giraud, 1986).

Quite apart from the history of colonization and the early reluctance of the Metis to accept the education offered to them, contemporary research adds to the long list of challenges faced by those Metis pursuing their schooling. According to the 2*012 Aboriginal Peoples Survey*, (APS) Metis high school leavers reported that they left high school for a number of reasons:

wanted to work (21%), school problems (21%), lack of interest (17%), and money problems (15%). Nearly 55% of Metis high school non-completers also had parents who did not graduate from high school. In addition, 39% of high school leavers cited racism as a factor in leaving their schooling behind.

Turning to post-secondary education, 2012 APS respondents who had attended a post-secondary institution were asked why they failed to graduate. Reasons cited by Metis aged 18 to 44 included: wanted to work (20%), lost interest or motivation (16%), pregnant or caring for children (16%), or courses were too difficult (4%). The various reasons why Metis post-secondary leavers felt stymied from furthering their education can be easily extended: too busy (48%), lack of confidence (46%), furthering one's education not a personal priority (41%), or courses did not match their needs (30%). Clearly, for many Metis students, the path from high school through the post-secondary education system is not linear and taken for granted. A variety of personal, family, and school-level factors are associated with not starting or completing one's post-secondary education.

Attending university carries in its wake all of the above challenges and more (APS, 2012). Dorian and Yang (2000) reported that many Metis students attending college or university often discover that the elementary and secondary education they received did not properly prepare them to succeed against the academic rigor of most post-secondary institutions; that is, Metis university students are routinely admitted to university with high school grade point averages much lower than those of general first year students. Many potential Metis university students are also intimidated by the possibility of assuming a large student debt. For a people who sometimes earn less than the typical Canadian, a student debt of $30,000 to $50,000 will seem that much more imposing. Ultimately, as observed by Dorian and Yang (2000), the lack of a university education hampers Metis people's ability to compete for employment in what has largely become a technology and information-based economy.

1.4 Attitudes Towards Aboriginal People

Historically, for many Aboriginal people in Canada, their interactions with the dominant culture were largely negative (Goulet & Goulet, 2008). The list of historical complaints by the Metis are well-known: early government assimilationist policies based upon the belief that Aboriginal cultures were inferior and in need of reform; usurpation of land and resource rights; being alienated from the mainstream economy; and early government unwillingness to assume

jurisdiction of Metis education.

The *Report of the Royal Commission on Aboriginal Peoples (RCAP)* published in 1996 suggested that one of the most difficult aspects of urban life for Aboriginal people is dealing with racism, which distorts and limits the life chances of Aboriginal people. More recent studies in cities across Canada agree that prejudice and discrimination remain an important issue for Aboriginal people. The *2007 Urban Aboriginal Task Force (UATF*) studied Aboriginal people in five cities in Ontario (Ottawa, Barrie/ Midland/Orillia, Sudbury, Thunder Bay and Kenora). The *UATF* found that 78% of Aboriginal respondents from all five cities felt that racism in those cities was a systematic problem for Aboriginal peoples. Respondents spoke of experiencing discrimination from landlords when looking for housing, from employers during job interviews, in shopping malls and restaurants, by the police, and in schools when faced by a bully or teacher. One interviewee observed that:

> Racism…is expressed covertly through (having) less opportunities in school and employment; in being treated disrespectfully by staff and doctors at the hospital and social service agencies who entirely ignore the cultural difference in their service delivery methods. Overt racism is the obvious, but it is the covert that is hard(-est) to battle: The hidden agendas and attitudes. The school is rife with covert racism and shows in the many ways they (Aboriginal students) are treated differently… (UATF, 2007; p. 104).

Significantly, the Report suggested that one of the settings where racism is most likely to occur is school.

The largest recent study of urban Aboriginal people in Canada is the *2010 Urban Aboriginal Peoples Study* (UAPS), which researched people in eleven cities (Vancouver, Edmonton, Calgary, Regina, Saskatoon, Winnipeg, Thunder Bay, Toronto, Ottawa, Montreal and Halifax). The UAPS concurred with the findings of other studies. Seventy-one percent of Aboriginal respondents believed that non-Aboriginal Canadians have a generally negative impression of Aboriginal people. Furthermore, Aboriginal people in the eleven cities were well-aware of the assorted negative images held by non-Aboriginals: addiction problems (74%), lazy (30%), lack of intelligence and education (20%); reliance on welfare and social assistance (20%), perpetually high unemployment (20%); homelessness and panhandlers (13%); abusing the

system (12%); getting a “free ride” and not paying taxes (12%); as well as high crime rates (12%).

Seventy percent of Aboriginal respondents in the *2010 UAPS* reported that they had experienced unfair treatment, and have felt the sting of being teased or insulted for being Aboriginal. Many Aboriginal participants (36%) agreed that they do not feel accepted by other Canadians. Further, 18% of Aboriginal respondents indicated that experience with non-Aboriginals had shaped their lives negatively in terms of discrimination and racism, fostering shame, lower self-confidence, and hiding their identity as an Aboriginal whenever they can.

In 2009, Statistics Canada conducted the *General Social Survey – Discrimination and Victimization*. Many Aboriginal respondents included in the national survey reported facing some type of discrimination in the previous five years, much of it experienced from a person in authority (47%), in a bank, store or restaurant (35%), on the street (33%), at work or when applying for a job (27%), when dealing with the police or courts (11%), and while attending school (21%).

Fortunately, the news is not all bad for Aboriginal people. The *UAPS 2010* found that many Aboriginal respondents in the cities studied were either happy (58%) or somewhat happy (36%) with their lives. McCaskill (2012) wonders if these relatively happy individuals are those Aboriginal individuals who have successfully managed to integrate into urban life and for whom discrimination may not be a significant issue in their lives. Be this as it may, the *2012 Interim Report of the Truth and Reconciliation Commission* (TRC, 2012) suggested that discrimination has been and continues to be an important part of the relationship between Aboriginal and non-Aboriginal Canadians.

Although many non-Aboriginal Canadians recognize the many challenges faced by Aboriginal people and are often sympathetic to their plight, their largess extends only so far. The *2011 Saskatchewan Election* study reported on the attitudes of Saskatchewan residents toward Aboriginal people. While many respondents (58%) agreed that discrimination makes life difficult for Aboriginals, many were also reluctant to provide any special treatment for Aboriginal people. Most respondents (72%) believed that Aboriginal people should work their way up without any special favours. Consistent with this belief, 42% believed that the various governments are already doing enough to help Aboriginal people, and should not grant Aboriginal people, what they regard as, preferential treatment. Thus, although many Saskatchewan residents recognize

that discrimination can hurt the lives of Aboriginal people, many nevertheless do not support any special treatment for Aboriginal people.

Research on attitudes toward Aboriginals suggests that Canadians, as a group, often hold conflicting attitudes about Aboriginals that contain both positive and negative dimensions (Bell, Esses & Maio, 1997). While Canadians might be sympathetic in some ways toward Aboriginals, they might, at the same time, dislike certain characteristics displayed by Aboriginals. For example, while indicating negative emotions toward Aboriginal people (e.g., anger) and negative stereotypes about Aboriginals (e.g., alcoholic), individuals can also harbour positive emotions about Aboriginal people (e.g., a victimized people) and positive stereotypes (e.g., admire the artistic or spiritual aspects of Aboriginal culture; Bell, Esses, & Maio, 1997).

This conflict between positive and negative attitudes and feelings is quite common. When discussing the black experience in the United States, Katz, Wackenhut, and Hass (1986) suggested that, while a White person might harbour positive attitudes about blacks, regarding them sympathetically, the individual may simultaneously hold negative feelings of aversion. In the *2010 UAPS* study reported above, many of the non-Aboriginal respondents seem to be sitting on the fence when it comes to Aboriginal people: 45% reported feeling ambivalent about the Aboriginal people in their community. The lesson learned about this brief discussion of ambivalence is this: people can simultaneously harbour both positive and negative feelings and attitudes about a social group. Their attitudes need not be solely negative or solely positive.

In 2014, the Canadian Broadcasting Corporation (CBC) commissioned a national online discrimination survey of 1,500 Canadian adults. Residents in the prairie provinces held particularly harsh attitudes towards Aboriginals. Only 50 percent of respondents from Manitoba, Alberta and Saskatchewan reported that they would feel comfortable in a romantic relationship with an Aboriginal person. This compared with the national average of 63 percent. The survey reported that many Canadians living on the prairies (39% versus 25% nationally), if given the choice, would prefer not to live next door to an Aboriginal person. As well, 34 percent of respondents from the three prairie provinces said that they would not feel comfortable working for an Aboriginal person, compared to 24 percent nationally (CBC News, 2014).

1.5 Prejudice, Discrimination and Stereotyping

While a number of factors may pull Metis people away from either starting or completing their post-secondary education, three additional inter-related factors known to

possibly impact academic learning and school completion are prejudice, discrimination, and stereotyping. As a reminder, earlier, when discussing the *2012 APS*, it was noted that 39% of Aboriginal high school leavers cited "racism" as a hindering factor. Similarly, as also reported above, the *2009 General Social Survey – Discrimination and Victimization* conducted by Statistics Canada, reported that 21% of Aboriginal respondents suggested that they had experienced some type of discrimination while in school.

Prejudice refers to an unsubstantiated negative prejudgement of individuals or groups, usually because of ethnicity, religion, race, gender, age, appearance, or disability (Dovidio & Gaertner, 2010). Discrimination may involve making a distinction against a person based on their membership within a particular class or group, where individual merit is ignored, leading to the exclusion of privileges or opportunities that are available to another group (Canadian Human Rights Commission, 2009). Stereotyping involves drawing generalizations, usually an oversimplication, that circulate in society, and which reflect expectations and beliefs about the characteristics of a social group perceived as different from one's own (Fiske, 1998). In this tripartite view, stereotypes are regarded as the most cognitive component, with prejudice representing an emotional reaction, and discrimination referring to actions (Denmark, 2010).

Consistent with what was reported earlier about the attitudes that many Canadians have towards Aboriginal people, Corenblum and Stephan (2001) observed that Aboriginal people are routinely stereotyped as poor, ignorant, unfriendly, stupid, and as having mainly themselves to blame for their contemporary problems. More recently, Wehun and Penner (2010) agreed that many Canadians harbour deep-seated negative attitudes about Aboriginal people, who are often thought of as lazy, uneducated, undependable, poor, drunks, aggressive, and so forth.

Given the tensions that have historically existed between Aboriginals and other Canadians, it should come as no surprise that either group often does not particularly relish much contact with the other (Corenblum & Stephan, 2001). Stephan and Stephan (1985) coined the term "intergroup anxiety" to describe the feelings of discomfort or anxiety that often occur when interacting with members of other social groups that are seen as very different from one's own. The amount of anxiety one might feel can vary according to factors such as one's prior experience with members of an out-group, and the particular situation. Meeting an Aboriginal in class at university is a different situation from meeting one during a job interview or at the bus stop. Theorized causes of intergroup anxiety include the following: belief that members of an

out-group are potentially dangerous; fear of being ostracized from one's own in-group for associating with members of an out-group; failing to demonstrate appropriate behaviours that conform to an out-group's social norms; fear of being rejected by members of an out-group; and concern about being ridiculed by members of an out-group (Stephan & Stephan, 1985). Intergroup anxiety is noteworthy because of its implications. Since anxiety is considered to be quite unpleasant by nature, intergroup anxiety may spawn intergroup hostility as individuals experience aversion to stimuli that arouses negative emotions (Stephan & Stephan, 1985). Intergroup anxiety has been found to be associated with reduced voluntary contact with outgroup members, and the increased application of negative stereotypes (Riek, Mania, & Gaertner, 2006).

More sobering, at least for the present purpose, is the realization that a concern about being stereotyped and treated unfairly can affect one's academic pursuits. One implication that may arise from a concern with being stereotyped involves "stereotype threat," which is the experience of anxiety in a situation in which the individual has the potential to confirm a negative stereotype about his or her social group (Inzlicht, 2011). In 1995, Steel and Aronson performed the first experiments showing that stereotype threat can undermine intellectual performance. Their study utilized the negative stereotype that African-Americans tend to underperform in the intellectual and academic domains (Richman, Bovelsky, Kroovand, Vacca & West, 1997 reported that while some White teachers routinely give lower estimates of the IQs of African-American students than European American students). African-American and White college students were given a difficult portion of the Graduate Record Examination (GRE). Some students were told that the test was measuring their intellectual ability. Other students were told that the test was not diagnostic of their intellectually ability. The results were eye-opening: in the stereotype threat condition, black students performed far worse than their White counterparts. However, in the non-stereotype threat condition, they performed significantly better than the White students.

Other studies on stereotype threat have shown similar results for other groups, including women, students from low socioeconomic backgrounds, and even White college students. Studying the phenomenon with women, the Spencer, Steele, and Quinn (1999) study observed that, in the United States, mathematics is generally regarded as a masculine domain, where males routinely outperform females. The researchers reported that women in the stereotyped threat condition (where the sample women were previously told that the test had shown gender

differences in the past) were outperformed by men in the same condition, even though both genders had comparable ability and exposure to mathematics. In the non-threat condition, men and women performed equally well.

In addition to occurring with women and ethnic minorities, stereotype threat has been shown among people from low-income groups, who are often burdened with the stereotype that they lack raw ability in the academic domain. Spencer and Castano (2007) studied the phenomenon among low socioeconomic status (SES) individuals. Results showed that when socioeconomic status was made salient before taking a test, or when the test was presented as a measure of fixed intelligence, low-SES students performed significantly worse, and reported lower self-confidence than low-SES students in the non-threat condition.

Even White male undergraduate majors can succumb to stereotype threat. Aronson, Lustina, Good, Keough, Steele, and Brown (1999) had White male undergraduate math majors complete math tasks in one of two conditions. In the threat condition, the students were told that they were competing with Asians, who were said to routinely do better on math tests. Findings showed that White male math majors in the threat condition performed significantly worse than their counterparts in the non-threat condition. Although the present project does not involve the concept of stereotype threat per se, the concept nevertheless helps draw out the potential power of stereotyping.

Many minority group students are concerned about how they will be received on campus. Many African-American students believe that discrimination is pervasive on campus and affects academic performance (Schmader, Major, & Gramzow, 2001). Also, African-Americans might not trust the evaluations of their White instructors, and believe that White instructors treat them less fairly than they treat other students (Ancis, Sedlacek, & Mohr, 2000).

A concern about being stereotyped and discriminated against can also seep over into a mistrust of a majority-dominated institution. When studying the African-American experience, Mendoza-Denton, Downey, Purdie, Davis, and Pietrzak (2002) observed that expectations of rejection can easily strain potential relationships between African-American students and majority-dominated institutions, especially institutions that have historically excluded or marginalized them. Among African-Americans, expectations of rejection ferments reduced trust and engagement in academic institutions, and suspicion of the dominant group people who seem to over-represent those institutions.

Lott and Rogers (2011) investigated a national (American) sample of undergraduate psychology majors, comparing the experiences and perceptions of students of colour with those of European Americans. Although both groups shared some overlapping attitudes, students of colour reported that they generally receive less encouragement from and interaction with faculty. They also perceived a lack of respect, and wanted to see more diversity in the curriculum, research activities, faculty, and textbooks. The students of colour were significantly less satisfied than European Americans with their studies in psychology.

Extending the above discussion to the Metis, if a Metis student suspects that a White teacher believes that Aboriginal people tend to be "unintelligent," "less sophisticated," "less educated," and the like, then, regardless of whether the instructor is actually biased, a wealth of research predicts that the Metis student might be affected in any number of ways (e.g., fear of ridicule and rejection, evaluation apprehension, distraction) that can interfere with learning and performance. After all, university instructors are people too and can be expected to harbour many of the same negative attitudes about Aboriginal people that are reportedly held by many Canadians. These perceived biases can be withering to their potential victims.

1.6 Mutual or Reciprocal Stereotyping

While research often focuses on the negative attitudes of dominant group members towards minority social groups, less attention is paid to the negative attitudes that minority group individuals harbour against dominant group members. In short, stereotyping is a two-way street. Corenblum and Stephan (2001) reported that Aboriginal people invariably harbour their own negative stereotypes about Whites, who may be regarded as unfriendly, hostile, unfair, and generally untrustworthy (see also Brown & Dobbins, 2004).

It has been suggested that many of the same principles used to understand prejudice towards minority groups can be applied to understanding prejudice towards majority groups. Allport (1954) argued 60 years ago that the underlying nature of prejudice is fundamentally the same for minority and majority groups. If a Metis person can be concerned about being rejected and treated unfairly by Whites, then a White person can also believe that they are often perceived unrealistically by Aboriginal peoples. If a Metis person can suspect that Whites hold them in low regard, then Whites can also suspect that Aboriginal people hold them in low regard. It is not surprising that these duelling suspicions can discourage any desire to spend much time together.

This is not to say that the stereotypes that minority group members might harbour toward

majority group members are simply a shadow or a deflection of the attitudes held by the latter. While there may be similarities between the attitudes of each group, one can also expect important differences; that is, the opinions of each may not simply line up against each other in a one-to-one fashion. For example, Allen (1996) conducted a study on mutual attributions by European-Americans and African-Americans. Results showed that, while there was some overlap in the opinions that each group held about themselves and the other group, there were differences. While both groups tended to see European-Americans as "smart," "greedy," "competitive," and "friendly," many African-Americans were quick to add "corrupt," "mean," and "prejudiced" in their list of traits assigned to European-Americans.

Vorauer, Main, and O'Connell (1998) reported that White Canadians are prepared to describe themselves quite harshly (i.e., potentially cruel, selfish, unfeeling, corrupt, and prejudiced, among others) when interacting with Aboriginal Canadians. The researchers suggested that, when considering their interactions with Aboriginal people, non-Aboriginal Canadians are prepared to assess how Aboriginal people might perceive White people. The Allen (1996) study suggested that many Aboriginal people would concur that White people can be "cruel," "selfish," "unfeeling," "corrupt," and "prejudiced." Although stereotyping by subordinate social groups against dominant social groups seems to have been studied less extensively than the reverse, the concept of mutual or reciprocal stereotyping suggests that, while Whites may stereotype Aboriginals, Aboriginal people themselves may stereotype Whites, and harbour negative attitudes about Whites that invariably contributes to their apprehensions about Whites and their expectations of prejudice. An Aboriginal student may have to swim against two concurrent streams: their perceptions about the biases held by Whites towards them, as well as the biases that they themselves harbour towards Whites. At any rate, the concept of mutual stereotyping is important because there is scant research showing how the Metis and other Canadians actually view each other.

1.7 The Power of Expectations

Educational expectations are the strategic centre of many social psychological models of academic outcome. Schilling and Schilling (1999) captured well the broad idea that expectations are vital to education:

> ... the literature on motivation and school performance in younger school children suggests that expectations shape the learning experience very powerfully. For example,

> classic studies in the psychology literature have found that merely stating an expectation results in enhanced performance, that higher expectations result in higher performance, and that persons with high expectations perform at a higher level than those with low expectations, even though their measured abilities are equal (p. 5).

A student may be entangled not only with his or her own personal expectations, but also with the expectations imposed upon them from without, for example, from friends and family. Research shows that there is a clear relationship between what parents expect and the achievement scores of their children, and this relationship remains stable even after controlling for socioeconomic status (Neuenschwander, Vida, Garrett, & Eccles, 2007). Parents will draw upon their own educational backgrounds, socioeconomic status, and their children's prior academic achievements to shape their expectations and predictions of their children's future academic ability (Neuenschwander et al., 2007). Raty and Kasanen (2010) examined the longitudinal effects of parent's expectations about their children's formal schooling future. One particularly interesting contribution of the study is that parents' expectations can crystallize fairly early in the life of their children. The researchers reported that, by the child's third school year, many parents had developed a distinct impression of their children's ability, as well as clear expectations of the probability that their child has the ability for advanced academic study.

Parental expectations can be so influential that they can help shape their children's academic self-concept. Jacobs (1991) found that children's math self-concept was more directly related to their parent's perceptions than to their own past performance. Gonzalez-Pineda, Nunez, and Gonzalez-Pumariega (2002) found that among 12- to 18-year-old adolescents parental expectations and school involvement had a significant positive influence on students' self-concept, which was casually related to academic achievement. Neuenschwander et al. (2007) compared the relationship between family SES and parents' educational expectations during early adolescence with students' self-concept of ability and academic achievement in mathematics and language. The link between SES and students' achievement scores was mediated by both parents' expectations and students' own self-concepts of ability.

When a student is actually in school, a particularly important relationship is the teacher-student relationship (see Rosenthal, 1994). The Rubie-Davis (2007) study drew out the potential influence of teacher expectations. Teachers were told that a certain number of their students had high IQs whereas in fact the students were randomly selected. The teacher's expectations became

self-fulfilling: those students who were tagged as high IQ eventually performed better than those who were not. Rubie-Davies reported that, compared with low expectation teachers, those with high expectations provided their students with more feedback, asked more open questions, and were generally more attentive and helpful to supposed high ability students.

Teachers can affect students directly, as when they directly provide learning opportunities, and indirectly, as when their social cues (e.g., off-the-cuff remarks, how much attention they give different students) subtly communicate their expectations about a student's abilities. Both high and lower level ability students can have their self-concepts of ability confirmed by their teachers (Bohlman & Weinstein, 2013). And teacher expectations are proposed as one contributor to the ethnic achievement gap, where teachers often expect more from Caucasian and Asian American students than from their African-American and Latino peers (Baron, Tom, & Cooper, 1985). McKown and Weinstein (2002) reported that African-American elementary students were more susceptible to negative expectations than their Caucasian peers.

McKown and Weinstein (2008) suggested that a teacher's differential expectations about ethnic groups follow three causal pathways. First, teachers may provide higher quality instruction to students from whom they expect more. Second, students may perceive subtle cues (e.g., remarks, disappointed glances, observing who gets the most or least attention) about what a teacher expects, and achieve to a level consistent with the teacher's expectations. Third, children from stereotyped groups may, in the face of low teacher expectations, become concerned about being judged on the basis of a stereotype, increasing susceptibility to stereotype threat.

It seems likely that teachers vary in the extent to which ethnic stereotypes about intellectual ability colour their views of students. Tenenbaum and Ruck (2007) conducted a meta-analysis to examine whether teachers' expectations and behaviour differed between certain ethnic minority students (i.e., African-American, Asian American, and Latino/a) as compared with European American students. The grade range was between grades 4 through twelve. The years of the various studies ranged from 1968 to 2003. The researchers found small but significant effects suggesting that teachers held lower expectations of African-American and Latino/a students. Furthermore, teachers held higher expectations for Asian American students (a traditional "model minority" group) compared with all other groups, including European American students. Although teachers were more encouraging with European American

children, this is not to say that they actively or intentionally discouraged the African-American and Latino/a children. They simply tended to be more helpful and encouraging to the European American children. At any rate, both the African-American and Latino/a children were on the bottom rung of the expectation ladder.

In summary, it seems clear that the alignment of conditions such as societal stereotypes, low parent and teacher expectations places stigmatized minority students at greater risk of academic underperformance (Weinstein, Gregory, & Strambler, 2004). American-based studies have a recurring theme: stigmatized minorities are particularly vulnerable to negative stereotypes and expectations. As mentioned above, many Canadians think of Aboriginal people as "uneducated" (Wehun & Penner, 2010) or "ignorant" and "stupid" (Corenblum & Stephan, 2001). The *2012 APS* reported that 39% of high school leavers cited racism as a hindering factor. The victims of negative expectations and potential prejudice might experience any number of reactions in an academic situation, including, but not limited to, resentment of the victimizers, increased anxiety, concerns about being humiliated and dominated; becoming distracted from the task at hand is common, and evaluation apprehension (Shelton, Richeson, & Salvatore, 2005; Allen, 1996). Potential victims may be quick to anticipate rejection from dominant group members (Major, McCoy, Kaiser, & Quinton, 2003), and might be primed to perceive rejection in the ambiguous behaviours of out-group members (Downey & Feldman, 1996). In the academic domain, the end result of the cluster of beliefs and feelings a minority group member might experience is a diminishing of their academic performance. In the United States, many African-Americans believe that discrimination is pervasive on campus and affects academic performance (Schmader et al., 2001). Similarly, many African-American students do not trust their White instructors, often believing that White instructors treat them unfairly (Ancis et al., 2000). It is not necessary for discrimination to be obvious and immediate. Simply suspecting the possibility of unfair treatment is enough to diminish one's expectations of success in a domain (Major, McCoy, Kaiser, & Quinton, 2003).

Canadian campuses are no stranger to racism. In 2010, the Canadian Federation of Students – Ontario released the *Final Report of the Task Force on Campus Racism* at York University. The Task Force investigated racism on college and university campuses across Ontario through 17 public campus hearings and individual submissions in 2009. The Report acknowledged that there are types of prejudice besides ethnic-based prejudice. In addition to

race, discrimination can also be based on gender, sexual orientation, social or economic class, age, ethnicity, culture, and religion. However, racism is given a special place in the Report because it is so widespread and a systematic feature of Ontario's post-secondary education system. An Aboriginal student from Laurentian University described the divide that often exists among students: "This class sits all Indians on this side, all white people on that side. So, from day one, it was like this … you've got an angry bunch of people over here and people over here who don't know what the hell is going on" (p. 7). Among its conclusions, the Task Force observed that:

> This report demonstrates that in too many instances, the campus reinforces discriminatory behaviours and ideologies within the broader society. While students' unions or student organisations are often a place of refuge for racialised students, there is no assurance that every person is free from discriminatory acts based on ethnic origin, religion, citizenship or any other grounds without the support from the institution. Currently, there is little academic research into the experience of racialised students in Canada's post-secondary education system (p. 22).

The book *Racism in the Canadian University*, published in 2009, contains a chapter by York University Women's Studies professor Enakshi Dua entitled "On the Effectiveness of Anti-Racist Policies in Canadian Universities: Issues of Implementation of Policies by Senior Administration" (Henry & Tator, 2009). Dua slams the current state of anti-racism policies at Canadian universities and their lack of effective implementation. Dua argues:

> While a number of policies have come into being, rarely are these policies effectively implemented. And, as we have seen, the most serious impediment to the successful implementation of such policies is the unwillingness of senior administration to address racism (p. 191).

Clearly, Canadian universities are under tremendous pressure to turn their campuses into more welcoming places for minority students. The *Final Report of the Task Force on Campus Racism* tables a bewildering array of suggestions for improving campus life. To make any sense of this mountain of recommendations, one must group the strategies into four major themes: (1) individual and systematic racism in campus life; (2) institutional racism in hiring and curriculum; (3) institutional racism in university policy and governance, as well as;

(4) systematic racism in the broader society. Every aspect of campus life was under the microscope. A small sample of recommendations included: provide Aboriginal student advocates for departments; publicize incidents of racism on campus; integrate the Aboriginal perspective into the mainstream curriculum; ensure that promotion criteria recognizes the under-representation of minority groups; provide human rights offices in administrative buildings; and encourage teachers to learn more about Aboriginal history and culture.

Furthermore, this need to change educational systems extends beyond university. Remembering that succeeding at university usually means succeeding in elementary and secondary school, the long-arm of change reaches far back. The following shows the type of problems and calls for change shouldered by universities and secondary schools.

Recently, the University of Regina's Cheerleading Team found itself at the centre of controversy when members of the team were involved in a social event involving a theme night where members dressed as "cowboys and Indians." Although the students have apologized, the University has denounced such behavior and has required the students to take cultural sensitivity training (Polischuk & Warick, 2013).

In March, 2014, the Saskatoon Public School Board voted to have the Bedford Road High School retire its current team name and logo. The team name was "The Redmen." The logo depicted a First Nations man with braids and feathers in his hair. Although many First Nations people have welcomed the change, many Bedford Road students were angry about the change, and were looking to buy clothes with the Redmen logo before it disappeared (French, 2014). In November, 2013, a department from the University of Saskatchewan's college of education called for the retirement of school mascots and logos that depict First Nations people. The resolution, which was unanimously passed, stated that the Department of Education "does not support the use of indigenous people depicted as school mascots, in logos, slogans, and team names in primary, secondary, and post-secondary schools." A faculty member stated, "We won't stand for racism anymore. Especially in a community that has a very large aboriginal population" (CTV News, 2013).

Recognizing the need for current learning systems to boost Aboriginal learner success, Alberta Education published a guide of effective practices for First Nations, Inuit, and Metis learner programs (Aboriginal Services Branch, 2005). Upholding fairness and boosting Aboriginal learner success puts educators under a great deal of pressure to validate Aboriginal

culture, history, and values. The guide offers 28 suggestions to teachers to improve Aboriginal learning. Some of the major suggestions include becoming more aware of Aboriginal history and culture; decorating classrooms with more Aboriginal art; discussing ethnic discrimination in the classroom and society; teaching examples of cultural conflict; familiarize teachers with Aboriginal legislation; use mainstream holidays to discuss how Aboriginal traditions can differ from mainstream traditions. It would seem that Aboriginal people and the myriad of Aboriginal organizations (e.g., the various provincial Metis Nations, Aboriginal Student Societies) that are pressing to improve the lives of Aboriginal peoples are placing the Canadian educational system under almost inescapable pressure.

1.8 Expectancy/Value Models of Motivation and the Demotivating Effects of Prejudice

Expectancy-value models of motivation assume that a person's achievement motivation and persistence are directly influenced by his or her expectations and value-beliefs (Eccles & Wigfield, 2002). The model is part of a menu of theories that focus on a person's beliefs about his or her competence and efficacy expectancies for success or failure, and sense of control over outcomes. In general, when people expect or believe that they can perform a given desired task, they are motivated to perform better. Bandura (1997) tabled a social cognitive model of motivation that emphasizes the role of perceptions of efficacy. Self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach goals. According to Bandura's theory, those individuals who believe they can perform well – that is, those with high self-efficacy – are more likely to view difficult tasks as something they can master rather than something to be avoided. Bandura (1997) did distinguish between outcome and efficacy expectations. The first, outcome expectations, are beliefs that certain actions will improve performance (e.g., the belief that studying hard at math will improve math performance). The second type of expectation, efficacy, is a belief that one can properly perform the behaviours necessary to achieve an outcome (e.g., I believe that I can actually practice sufficiently hard to improve my math skills). The difference between the two beliefs is that, while a person might objectively believe that a certain course of action should produce a certain outcome, the individual might doubt his or her own ability to perform the required actions. For example, while a college student might believe that, as a general rule of thumb, if a person works hard at university, he or she should be able, all things being equal, to succeed in university. Of course, not all things are always equal. If the student has to work to earn a living, or is a single mother,

or is having family problems, the student might also believe that his her circumstances are preventing success at school.

The locus of control theories represent another type of expectancy-based theory. Locus of control refers to the extent to which individuals believe that they can control events that affect them (Rotter, 1966). A person's locus can be either internal, where the person believes that he or she ultimately control his or her decisions and life, or external, meaning that the person believes that his or her decisions and life are somehow controlled by external, environmental events (Carlson, Buskist, Enzel, & Heth, 2007). A prime example of someone with an internal locus of control might be the individualist who believes that he or she ultimately has the ability to oppose any external opposition to his or her interests and desires. A prime example of someone with a strong external locus of control might be the fatalist who believes that, by and large, he or she has little power to influence his or her own future. Similarly, an Aboriginal college student who suspects that someone else (e.g., an instructor) has a chip on his or her shoulders about Aboriginal people might, at least at that moment, has an external locus of controlling, believing that someone else is controlling or dominating his or her chances of success.

Another important concept for the expectancy/value theories is motivation (Eccles & Wigfield, 2002). A familiar distinction is between intrinsic and extrinsic motivation. When people are intrinsically motivated, they will engage in an activity simply because they enjoy it, and give little thought to any material gains that might be attained from engaging in the activity. Those who are extrinsically motivated might not really enjoy an activity; they do it largely because doing the task will bring some benefit (Ryan & Deci, 2000). For example, a student might not find studying statistics intrinsically enjoyable but still study hard primarily because he or she needs to do fairly well in statistics in order to be accepted into graduate school.

While some theories (e.g., self-determination theory) characterize intrinsic motivation in terms of people's innate psychological needs (e.g., basic need to maintain an optimal level of stimulation, the basic need for competence, need for sense of autonomy; Ryan & Deci, 2000), other theories (e.g., flow theory) conceptualize intrinsic motivation in terms of emotional experience. For example, for Csikszentmihalyi and Csikszentmihalyi (1988) "flow" is completely focused motivation, a single-minded immersion that perhaps represents the ultimate experience in harnessing the emotions in the service of learning and performing. The hallmark of flow is a feeling of spontaneous joy, perhaps rapture, while performing a task. In other words,

when performing a task, the individual is "hyperfocused," "in the zone," or "on a roll."

Another type of motivational theory is goal theory in relation to academic achievement. Several different approaches have emerged. Bandura (1997) proposed that somewhat challenging goals are generally better than easily reached goals because they promote self-efficacy and subsequent improved performance. Others, such as Nicholls, Cobb, Yackel, Wood, and Wheatley (1990) defined two motivationally relevant goal patterns: ego- and task-involved goals. Individuals with the former seek to maximize favourable evaluations of their competence while minimizing negative evaluations. Questions such as "Will doing this make me look smart?" and "Can I do the best in the class?" reflect ego-involved goals. In contrast, with task-involved goals, the individual focuses on the task itself, perhaps giving little thought about how he or she will appear to others. Questions such as "What will I learn?" or "How can I actually perform this task?" reflect a task-involved goal.

A useful distinction in the area of goal theory is the distinction between performance-approach and performance-avoidance goals (Elliot & Church, 1997). With the former, a student might seek to demonstrate competence relative to that of others. For example, the desirable outcome of a performance-approach goal is earning higher grades than others. In contrast, with a performance-avoidance goal, the student seeks to demonstrate that he or she is not incompetent, especially in the presence of others. Achievement in this context means trying to avoid an undesirable outcome such as getting poor grades.

Wentzel's (1993) approach focuses on the content of one's goals, rather than on mastery versus performance criteria of success. Goals related to school achievement include seeing oneself as successful, dependable, curious, and wanting to get things done. Wentzel suggested that higher-achieving students have higher levels of both social responsibility and achievement goals than lower-achieving students.

Attribution theory includes those theories that emphasize an individual's interpretations of achievement outcomes, rather than his or her motivational dispositions or actual outcomes (Sanderson, 2010). Weiner (1992) identified four achievement attributions or explanations: ability, effort, task difficulty, and luck. These attributions are classified into three causal dimensions: locus of control, stability, and controllability. The first, locus of control, as the reader may remember, has two poles: internal versus external. The stability dimension indicates whether or not causes change over time. Controllability distinguishes causes one can control,

such as effort, from causes one cannot control, such as luck, or others' attitudes and actions. Each of these attributions or explanations has unique influences on achievement behaviour. Attributing an outcome to a stable cause such as ability has a stronger influence on expectancies for future success than attributing an outcome to a less stable and predictable feeling such as desire, which might rise and fall. Attributing an outcome to an internal cause might enhance one's pride, but attributing an outcome to the goodwill of another person might enhance one's gratitude but not one's pride.

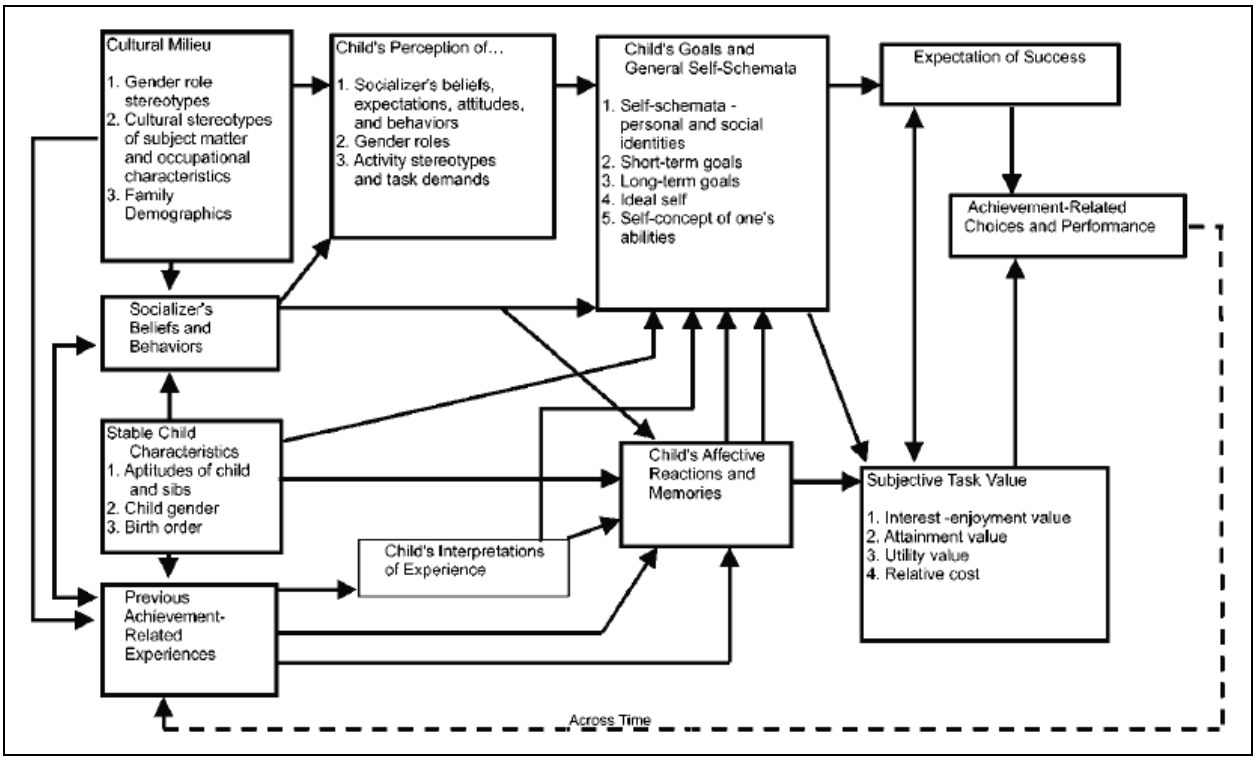
1.9 The Expectancy-Value Theory

The model developed by Eccles and Wigfield (2002) has been investigated largely in relation to school achievement (Conley, 2012). While expectancies and values play the primary role in the model, they are affected by an assortment of prior general goals, self-beliefs, affective memories, and perceptions of past experiences and beliefs. Influence of culture, and the effects of socialization by parents, peers, and schools have direct and interactive effects on students' expectancies and values (see Figure 1 below). Although expectancy-value theory can be criticized for over-emphasizing rational cognitive processes leading to motivation and behaviour, by including affective memories, identity-related constructs, and culturally-based stereotypes as part of the theoretical system, the Eccles and Wigfield (2002) model does include less rational processes in motivated behavioural processes.

Expectations of success and valuing success in an educational domain are strong predictors of motivation and subsequent task performance. William James, in 1890, suggested that the expectation of failure in a domain leads individuals to devalue (or give up pretensions of success in) that domain (Rutherford & Fancher, 2012). According to Eccleston and Major (2010), expectations are an individual's beliefs about whether he or she will be successful at obtaining an outcome.

Figure 1.1

Expectancy-Value Model of Achievement



Source: Eccles and Wigfield (2002)

Subjective task value has four components: intrinsic value, attainment value, utility value, and cost (Wigfield & Eccles, 2000). The first, intrinsic value, is simply the enjoyment individuals get from performing a task, quite apart from any extrinsic importance the task might possess. Attainment value is the importance to the self of doing well on a task. It is connected with one's sense of identity and confirming or disconfirming salient aspects of the self. For example, students who pride themselves on being good students seek affirmation in the form of grades or test scores. The third value, utility, involves a task's extrinsic value or how the task relates to one's future goals. Cost refers to the various negative aspects of engaging in a task, including anticipated emotional costs (e.g., evaluation apprehension, fear of failure) as well as the foregoing of other enjoyable activities (e.g., going to the movies, or leisurely reading).

A basic overarching theme of the expectancy/value theories of motivation is that individuals who expect to encounter prejudice in a domain may (a) be less likely to expect success in the domain; (b) place less value on obtaining an outcome; and (c) be less motivated to perform at their best when trying to obtain an outcome. The end result is often (d) diminished

actual task performance. Eccleston and Major (2010) examined achievement motivation among women who were led to believe that they were being evaluated for a co-management job. The women were randomly assigned to one of two groups: they either received information that their evaluator held negative attitudes towards women or that he did not. As one might now expect, women who were led to believe that their evaluator was prejudiced showed lower expectations of being selected co-manager, placed less value on being chosen as co-manager and, showed less motivation to perform an assigned task to the best of their ability. Schmader, Major, and Gramzow (2001) found that the more African-American students perceived discrimination, the less they valued academic success and the more they discounted the validity of academic feedback. Again, the moment the African-American students perceived the possibility of unfair treatment, the less motivated they were to persist in the pursuit of an otherwise valued personal goal. Again, the lesson is the same: encountering or anticipating the possibility of prejudice in a domain may reduce expectations of success and the value placed on achieving a goal, both of which can become a source of friction dragging back task performance.

Regardless of the theoretical approach one adopts, prejudice and discrimination are damaging. Victims may experience a host of reactions in the face of actual or expected prejudice, including but certainly not limited to evaluation apprehension; depressed expectations of success; task devaluing; psychological disengagement; hostility towards and mistrust of a potential victimizer; and readiness to anticipate unfair treatment. All of these subjective reactions can coalesce into one observable outcome: the individual simply does not perform a task as well as could otherwise be expected.

1.10 Social Identity and High and Low Group Identifiers

Social identity is the portion of an individual's self-concept derived from perceived membership in a relevant social group (Tajfel & Turner, 1986). As originally formulated by Henri Tajfel and John Turner in the 1970s and the 1980s, social identity theory introduced the concept of a social identity to help explain intergroup relations that are marked by friction. Tajfel and Turner (1986) proposed that there are three basic mental processes involved in evaluating others as "us" or "them" (i.e., in-group or out-group). These processes take place in a particular order. The first is the social categorization process, where we mentally categorize people into different groups based on their perceived common characteristics. Some of the most common groupings people use include gender, occupation, and race. In the second stage, social

identification, we adopt the identity of the group we have categorized ourselves as belonging to. For someone who identifies him or herself as a parent, it is his or her task to learn the attitudes, values, obligations, beliefs, and norms that our culture associates with one's role as either a mother or father. The parent must learn when and how to move in and out of the role of mother or father. During the day, if he or she works outside the home, the individual will have to think like an employee. But, at home, the individual will be required to leave part of him or herself at work and don the hat/identity of a mother or father. The same can be said for any of our social identities. The individual is not always an uncle/aunt or friend/acquaintance or Metis; the identity that is invoked will depend, in large part, on the requirements or demands of the situation.

The theory also holds that an individual has as many identities as self-categorizations, and that this set of identities make up one's total self-concept. Thus, an individual's self-concept might comprise a number of identities, including son/daughter, father/mother, husband/wife, high school graduate, Canadian, Aboriginal person, Metis, and so on. These different identities are often organized into a hierarchy of inclusiveness in which smaller systems make up and are nested in a larger system. One hierarchy might be "North American, "Canadian," "Western Canadian," "Saskatchewanian," "Saskatonian," "Aboriginal person," "Metis." Thus, smaller, subordinate categories are nested within larger, more inclusive categories.

Of course, not all of the social identities that might be available to a person are all active at the same time. Whether or not an identity is active depends upon the salience of the identity at the moment (Turner, 1987). Salience involves the situational activation of an identity at a particular moment, where a particular identity becomes activated or salient as a function of the interaction between the characteristics of the perceiver and the situation (Turner, 1987). Throughout any given day the individual might move into and out of numerous identities: husband/wife, father/mother, employee, uncle/aunt, friend, and so on. Similarly, a Metis person does not always attend to his or her Metis identity. In most situations, it is simply not salient. But in others, one's Metis identity might be very salient. One potential situation is an academic situation, where the individual might suspect that, on occasion, his or her social identity as a member of an assumed stigmatized minority group might be very relevant to someone else.

The third and final stage is social comparison. Once we have categorized ourselves as part of a group and have identified with that group, we then tend to compare that group with other groups. Cognitive contrasting of in-groups and out-groups is understood to be a strategy

designed to promote distinctiveness, perceptual clarity, and social meaning (Hornsey, 2008). Having categorized oneself as a Metis, the individual must also learn to recognize others who happen to share his or her category. The individual must also learn to recognize how the Metis social category is different from other social categories. Perhaps as quickly as the Metis individual learns that oak trees and elm trees belong in the category "trees," he or she learns that, even though the Metis, First Nations, and Inuit peoples belong in the category "Aboriginal," each group differs from each other in important ways. The Metis individual also learns that Aboriginal peoples differ in important ways from most other Canadians who often trace their history to other distant lands from across the ocean.

A central process in developing a social identity is depersonalization or seeing the self in terms of the social category embodied in the in-group prototype or model. Depersonalization is the basic process underlying group phenomena such as group cohesiveness, ethnocentrism, and social stereotyping (Turner, 1987). When depersonalization occurs, individuals behave in ways that are consistent with the prototype or model of their social group as they perceive it to be, thereby minimizing their personal identity – that which makes them qualitatively different from others – as it exists apart from his or her social identity, or that which he or she share in common with other members of his or her social category. In other words, when depersonalization occurs, the individual will shift focus from the individual-self to the group-self and the perceptions of others. Returning to the university student example, when the individual classifies him or herself as a university student, he or she will attempt to think and act like one, and will recognize how he or she is different from non-university students. Thus, one's social identity as a university student temporarily takes precedence over one's unique, non-student self.

One complicating factor is that not all individuals perceive and react to their identity in exactly the same way; that is, there is a great deal of individual variability in how individuals view the nature and consequences of their social identity. Turning first to consequences or outcomes, while the *2010 Urban Aboriginal Study* (UAPS) reported earlier found that 71% of Aboriginal respondents believed that other Canadians have a generally negative impression of Aboriginal people, this means that 29% do not hold this belief. While many Aboriginal people are well aware of the negative images held by non-Aboriginals, others do not seem overly concerned. The *UAPS* also found that only 20% of Aboriginal respondents believed that non-Aboriginal Canadians view Aboriginals as generally unintelligent or uneducated. While

36% of the Aboriginal respondents agreed that they do not feel accepted by non-Aboriginal Canadians, this means that 64% of Aboriginal respondents did not hold to this belief. And, while 18% of Aboriginal respondents indicated that experiences with non-Aboriginals had shaped their lives negatively through racism and discrimination, this means that 82% did not have this belief. These findings show that different people will view the consequences of their identity differently. A Metis living snugly in a recognized Metis community such as Duck Lake or Batoche might view his or her identity and its effect on others differently than a Metis who lives in Saskatoon, and who is clearly outnumbered.

Turning next to one's sense of identity, just as there is substantial variability in how Aboriginal people view the social consequences of their social identity, there is also variability in how strongly or deeply people identity with and are committed to their social identity. While one individual might identify strongly with being a Metis, someone else, even though his or her roots into the Metis heritage are just as deep, might be far less devoted. And certain consequences can follow from this varying commitment to one's social identity.

One general principle of Social Identity Theory is that those who strongly identify with their social group may be particularly defensive when their social identity is threatened by out-group members (Tajfel & Turner, 1986). Extending this logic to the present argument, those Metis who derive a strong sense of social identity from membership within their in-group may be particularly on-guard – that is, concerned about perceivers' prejudiced attitudes and discriminatory behaviours – and, hence, apprehensive, in response to a possible threat to their social identity. In contrast, since low Metis-identifiers have less of an identity stake in their group, they may be less likely to anticipate prejudice and may be less defensive in response to situational cues suggesting possible threat. Members of stigmatized groups who strongly identify with their group are more likely to perceive prejudice across different times and situations than their weakly identifying counterparts (Schmitt & Branscombe, 2002). To put this observation in other terms, those people who experience more chronic activation of their group identity are more apt to interpret unknown events through the lens of their group membership relative to those people who do not experience chronic activation of their social identity (Sellers & Shelton, 2003). After experiencing negative test feedback from an evaluator whose attitudes toward women were unknown, women who highly identified with their gender were more likely to attribute the feedback to sexism compared to women who only weakly identified with their

group (Major, Quinton, & Schmader, 2003). Similarly, after experiencing a negative interaction with Whites, those ethnic minorities who strongly identified with their group were more likely to label that experience as an instance of prejudice compared to their less identified counterparts (Operario & Fiske, 2001). Thus, how threatening a person perceives a situation to be may depend, in part, on how strongly the person identifies with their group, with the high identifier being more liable than a low identifier to interpret a situation as potentially dangerous (Falomir-Pichastor, Gabarrot, & Mugny, 2009). As a result, the reaction of high identifiers to a situation may be stronger and more adverse than the reactions of weak identifiers. For low identifiers, the threat posed by the social context may not work above the required minimum level of threat needed to activate their group related motives and apprehensions.

Low identifiers may have a number of cognitive strategies available to make their point that the individual does not strongly view him or herself as a loyal member of a social group. A low identifier may try and separate him or herself from a social identity. He or she can try and shift from social to personal categorization and define him or herself less as a group member and more as unique individuals who are less effected by group evaluations (Blanz, Mummendey, Mielke, & Klink, 1998). Low identifiers may be inclined to adopt the strategy of stressing the similarities they share with another group rather than focusing on the differences (Doosjie, Ellemers, & Spears, 1995). For example, a Metis person might remind an "other" that they share more similarities in circumstance and outlook than differences. The Metis person might remind someone that, despite the stereotype that many Aboriginal people are relatively less affluent, he or she earns just as much as most Canadians. In this case, the Metis person may be trying to stress his or her similarities with someone, while minimizing his or her differences.

A closely related strategy to emphasizing the similarities between different social identities is the "black sheep effect" (Marques & Paez, 1994), namely, the tendency to downgrade in-group members who do not live up to in-group standards, and judge them more harshly than other in-group members. This phenomenon allows low identifiers to dissociate themselves from undesirable in-group members, if not from the central, core tendencies of their in-group. For example, a Metis person with a relatively high degree of formal education might devalue those Metis who happen to have little formal education. Similarly, although both First Nations and Metis are considered to be Aboriginal peoples, a First Nations person might devalue a Metis person for not being Aboriginal enough. Of course, a similar strategy might be available

to the Metis person who might look down upon the First Nations person for being "*too* Indian." In effect, the individual is splitting a larger, more inclusive category, for example, "Aboriginal" into smaller categories and placing greater value on their own segment (Tajfel, 1978). Dividing a social group into layers gives the individual the opportunity to elevate his or her subgroup relative to another, less valued subgroup (Hornsey, 2008).

On this note, The *Urban Aboriginal Task Force Report (2007)* suggested that 50% of respondents indicated that racism even occurs between Aboriginal people. The Report writes that this type of discrimination "… appears to revolve around questions of internal competition for racial as well as other forms of social merit and power" (p. 21). Thus, a darker skin toned Aboriginal person might regard him or herself as more Aboriginal than a lighter toned Aboriginal person. Or someone more deeply involved in traditional cultural practices might see him or herself as more Aboriginal than someone who is less involved. Another form that this internal type of discrimination takes is that the economically successful urban Aboriginal middle-class can exclude and distance themselves from those Aboriginal people seen to be less successful (An apparent example of the "black sheep" effect.).

Another strategy might be for a low identifying Metis to try and pass him or herself off as someone without an Aboriginal heritage. Having a dual identity, the individual might be in the position to identity more strongly with the White side of his or her identity as opposed to his or her Aboriginal side. This does not mean that the Metis person is necessarily ashamed of his or her Metis heritage. It just might mean that, because of his or her lighter skin tone (and other physical characteristics) and upbringing, the individual simply does not feel his or her "Metis-ness" all that deeply. Perhaps the person regards him or herself as basically an average Canadian who happens to have Metis heritage. Many Canadians are in a similar situation. For example, a Canadian whose grandparents migrated from Germany likely does not view him or herself as being German per se. Instead, the individual likely regard him or herself as a Canadian who *happens* to have a German heritage.

Bringing all of the above into sharper focus, individuals who only weakly identifies with their social group, and who are not overly concerned about protecting and enhancing it, may resist efforts to categorize them. Resistance to categorization may stem from a variety of motives, including the desire to maintain a sense of individual uniqueness, a conviction that the categorization is not particularly relevant to the situation at hand, the view that other

categorizations are more applicable, or resentment of losing personal control when labels are being imposed by others (Ellemers, Spears, & Doosjie, 2002). Perhaps this helps explain why the known number of Aboriginal students at some universities are considered to be an under-count. When given a choice, many Aboriginal people do not self-declare as Aboriginal. Perhaps, for one of the above reasons or others, they simply resist being categorized. Also, recall the earlier observation that being Metis means more than having some Aboriginal blood. One must also be willing to self-identity as Metis. Even though an individual might have Metis ancestry, the identity that is inherited might not be particularly important to his or her self-image. Consequently, the individual might be reluctant to self-identity as Metis.

The assorted strategies available to more highly committed individuals are, in many ways, just the opposite of those used by low-group identifiers. Rather then emphasizing the overlapping similarities between social groups, committed members may emphasize in-group homogeneity and outgroup differences, thereby achieving a sense of positive distinctiveness (Branscombe & Wann, 1994). Doing so allows one's in-group to stand out in sharper contrast with an out-group. Another tendency is to view an out-group in negative stereotypic terms (Branscombe & Wann, 1994). For members of a low status group, stereotyping the members of a higher status social group allows them to "put the shoe on the other foot" and enhance their feelings of distinctiveness and perhaps superiority.

In conclusion, having a social identity is more complicated than some people believe. To be a Metis, it is not enough simply to have some Aboriginal blood coursing through one's veins. To be meaningful, the identity must be important to one's self-image. It is also a legal category. The Canadian Constitution recognizes the Metis as a distinct people. To enjoy the various legal rights afforded by the identity, the individual must prove his or her Metis heritage. As mentioned, the individual must self-declare the identity, be able to trace their Metis lineage back in time, and be accepted as a Metis claimant. However, being a Metis is not all or none. Some Metis individuals will experience their social identity strongly, others less so. Research suggests that high and low identifiers of (assumed) stigmatized groups may diverge in how they experience and react to the possibility of discrimination. High identifiers often carry their apprehensions about dominant-group members wherever they go. Low identifiers are often less sensitive to the possibility that, at any moment, prejudice can rear its head. But, when prejudice is perceived, it can stain everything in its path, leaving its victims confused and resentful.

1.11 The Current Study

While there is a wealth of research on the demotivating effects of prejudice on students from various stigmatized social groups, such as Blacks or Latinos, and to a lesser extent, Aboriginal people in general, there is a dearth of research on the experiences of Metis post-secondary students. The current study examined how being the potential victim of prejudice can influence Metis students' task performance, their beliefs and judgments about their ability to obtain a goal, and their opinions about a potential non-Aboriginal victimizer. Metis post-secondary students were categorized as either a high or low Metis identifier. They were asked to role play that they were applying for a job where they would be hired by a non-Aboriginal employment manager, who may or may not harbour negative attitudes towards Aboriginal people. The students were sequentially assigned to one of three conditions: in the first condition, the manager was described as prejudiced; in the second condition, the students were given no information about the attitudes of the manager towards Aboriginal people; in the third condition, the manager held positive attitudes about Aboriginal people and, therefore, was not prejudiced. It was proposed that anticipating the likelihood (or unlikelihood) of prejudice may result in divergent reactions between the high and low Metis identifiers. Although both groups might react in a similar manner when prejudice was imminent and likely, they might diverge in their reactions in situations where the possibility of prejudice is ambiguous or unlikely. Specifically, it was expected that, while the high and low Metis identifiers would react in a similar manner when prejudice was likely, past this point, when prejudice was ambiguous or unlikely, the high identifiers would nevertheless react more negatively than the low identifiers.

Chapter 2. METHODOLOGY

2.1 Introduction

The current research was designed to examine how the task performance and attitudes of Metis students can be influenced by perceived prejudice. The study has received the approval of the Metis post-secondary institution from which the students were drawn as well as the Behavioural Research Ethics Board located at the University of Saskatchewan.

2.2 Participants

Prior to conducting the main study, a pilot study was conducted to assess the reliability of the Metis Identity (MI) Scale, which was used to categorize the students as either high or low Metis identifiers. Thirty-five Metis students participated in the pilot study. The students were enrolled in an institution in Saskatchewan that provides university-level training exclusively to Metis adult learners. Seven students were male and twenty-five were female (3 missing). The average age of the students was 26.0 years, with a range from 18 and 46 years (SD = 8.3).

The main study involved one hundred sixty-five Metis post-secondary students who were enrolled with the same institution in Saskatchewan. Forty-one participants were male. One hundred twenty-two participants were female. The average age of the participants was 26.0 years, with a range from 17 to 51 years (SD = 7.0). Thirty-seven percent of the respondents were participating in a university-based program (Male N = 18, Female N = 42). Twenty-four percent were participating in a skills-based program (Male N = 2, Female N = 32). Thirty-nine percent were participating in a basic adult education program that covered the grades from ten to twelve (Male N = 21, Female N = 43). The mean length of post-secondary schooling was 1.85 years (SD = 1.7). Fifty-six percent of participants regarded themselves as having been raised in an urban region (Male N = 17, Female N = 69). Forty-four percent of participants regarded themselves as having been raised in a rural region (Male N = 17, Female N = 50).

2.3 Measures

The current study used mainly a 2 X 3 design in order to examine the reaction of the high and low Metis identifying participants across three conditions: Prejudiced, Unknown Attitudes, Non-prejudiced. The participants completed four main measures. Three of the measures functioned as dependent variables: Controlled Oral Word Association Test (COWAT), Selection Attitudes (SA) Scale, and Stereotyping of Whites (SW) Scale. The Metis Identity (MI) Scale, was used to categorize the participants as either high or low Metis identifiers.

2.3.1 Controlled Oral Word Association Test (COWAT; Straus & Sherman, 2006): the test is a measure of verbal fluency, and was used as an indirect measure of achievement motivation. The COWAT consists of three letters: F, A, S. Participants were asked to name as many words as possible beginning with each letter. Following this portion of the test, participants were asked to (1) name as many items as they could from the kitchen; and (2) as many animals as they could. Participants were given 1 minute for each of the three letters, and 1 minute each for naming the kitchen items and animals. Ruff, Light, and Parker (1996) reported a coefficient alpha for the COWAT of r = .83. The researchers reported a test-retest coefficient of 0.74. Although the COWAT is an oral test, where participant's oral responses are recorded by a researcher, for the present study the students were asked to write down their responses on a sheet of paper.

2.3.2 Selection Attitudes (SA) Scale: The SA Scale was modeled on a scale developed by Eccleston and Major (2010), and was used to measure the participants' expectations of being hired, the value they placed on being hired, their motivation to perform the COWAT to capacity, and their beliefs about the manager's sense of fairness.. The measure consists of four subscales:

(a) Expectations of being hired*:* Items included: "I expect that the manager's impression of me will be a positive one," "I believe the manager will hire me." (1 = not at all to 6 = very much). Eccleston and Major (2010) reported that the items formed a reliable measure (alpha = .86).

(b) Value placed on obtaining a goal: Items included: "It is important to me to be hired," "Whether I am selected will not have an effect on me," "It doesn't matter to me one way or the other if I am chosen" (1 = not at all; 6 = very much). Eccleston and Major (2010) reported that the items formed a reliable measure (alpha = .88).

(c) Motivation to perform the verbal task: Items included: "I felt motivated to perform well on the task," "I tried as hard as I could to do well on this task" (1 = not at all; 6 = very much). Eccleston and Major (2010) reported that the items formed a reliable scale (alpha = .76).

(d) Beliefs about manager's sense of fairness: Items included: "I believe that the manager's judgments of me will be biased," "I believe that the manager will act justly towards me," "I believe that the manager will judge my work fairly," and "I believe that the manager's judgments of me will be impartial" (1 = not at all to 5 = very much). Eccleston and Major (2010) reported that these four items formed a reliable measure (alpha = .92).

2.3.3 Stereotyping of Whites (SW) Scale*:* A negative stereotyping index developed by Corenblum and Stephan (2001) was used to assess the extent to which the Metis students

stereotype non-Aboriginal people. Participants were asked to indicate the percentage of non-Aboriginal people who possess each of 12 traits: calm, uneducated, clean, boastful, lazy, loud, passive, sophisticated, reliable, spiritual, considerate, and aggressive. The response format consisted of a 10-point scale representing 10% increments running from 0% to 100%. In addition to providing percentage estimates for each trait, participants rated the favourability of each trait. These evaluations employed a 10-point format running from -5 (Very unfavourable) to +5 (Very favourable). The percentage estimate of each trait was multiplied by its evaluation and the resulting products were averaged to create a stereotype/evaluation index of the attitudes of the Metis students towards Whites.

2.3.4 Metis Identity (MI) Scale: The Metis Identity (MI) Scale was used to categorize the students as either a high or low Metis identifier. The Scale was created by selecting and adapting items from a number of scales used in previous research. From the *Collective Self-Esteem Scale* (Luhtanen & Crocker, 1992), four items were modified from the *Importance of Identity* subscale: "Being a Metis is an important part of my self-image," "Being a Metis contributes to what kind of person I am," "Being a Metis has very little to do with how I feel about myself," and "I identify with other Metis people." Respondents were asked to circle one of five response options (1 = Strongly disagree to 5 = Strongly agree). Luhtanen and Crocker (1992) reported an alpha of 0.85 for their items. Four items were modeled after the *Group Identification Measure* used by Doosje, Ellemers, and Spears (1995): "I see myself as a Metis person," "I am glad to be a Metis," "I feel strong ties with the Metis people," and "How much do you identify yourself as Metis?" Respondents were asked to circle one of five response options (1 = Not at all to 5 = Extremely). Doosje et al. (1995) reported that their four items formed a reliable scale with a Cronbach's alpha of 0.83.

See Appendix D for the Selection Attitudes (SA) Scale, Stereotyping of Whites (SW) Scale and Metis Identity (MI) Scale.

2.4 Procedure

The researcher travelled to various locations in Saskatchewan to survey the students in their classrooms. Prior to conducting the surveys, the researcher obtained letters of support from various directors and program coordinators involved with the programs offered to the Metis students. Potential participants were recruited by their program coordinators and class instructors. The students were informed that a research project was underway by a PhD

candidate interested in learning more about the challenges faced by Metis people who are trying to upgrade their education, and who ultimately want to improve their employment prospects. Participants were told that their participation was voluntary. Participants were asked to role play that they were applying for a job in Saskatchewan. They read a scenario telling them that a provincial forest resource management company wanted to develop a provincial forest management plan that would provide long-term benefits to Aboriginal people in the province. Participants went on to read that a company employment manager would hire Aboriginal students, who would work closely with the manager. Participants also read that it is common practice for companies to administer aptitude tests to help employers decide whether a job candidate is an appropriate fit for their company. Participants read that the employment manager would evaluate their test performance and decide whether or not to hire the applicant. Participants were randomly assigned to one of three conditions, which constituted the prejudice-manipulation for the study: (1) prejudiced, (2) unknown attitudes, and (3) non-prejudiced. Participants in the prejudiced condition read a statement suggesting that the employment manager is White and agrees with statements such as: "I cannot work easily with Aboriginal people because they tend to be unreliable," "I cannot work easily with Aboriginal people because they tend to be less educated than Whites," "I cannot work easily with Aboriginal people because they think too differently from me" and "I would prefer not to work with Aboriginal people." Participants in the unknown attitudes condition were not given any information about the attitudes of the manager towards Aboriginal people. The participants only read that "The manager is White and has been the employment manager for a number of years." Participants in the non-prejudiced condition read that "The manager, who is White, feels very comfortable with Aboriginal people and believes the following: "I can work easily with Aboriginal people because they tend to be reliable," "I usually work easily with Aboriginal people because the ones I have worked with tend to be well-educated for the job," "I work easily with Aboriginal people because I understand them and we think a lot alike." To avoid gender bias, the gender of the employment manager was not divulged in any of the conditions. After the participants had read the description of the non-Aboriginal manager, they were asked to complete a battery of questionnaires including the Controlled Oral Word Association Test (COWAT), the Metis Identity (MI) Scale, the Selection Attitudes (SA) Scale, and the Stereotyping of Whites (SW) Scale. The different scenarios given to the students were sequentially balanced. Since no

identifying information was required, participation was anonymous. Participants did not receive any benefits or incentives for their participation. Upon completion, participants were thanked, and asked to place their questionnaires in a box, which was subsequently removed by the researcher.

2.5 Hypotheses

While some members of a stigmatized social group can identify with their social group quite strongly, other might be less committed to their social identity. Consequently, different individuals can be more or less alert to the possibility that they may be the targets of prejudice. The current study examined how the reactions of high and low Metis identifying post-secondary students can be affected by possible prejudice. While encountering possible prejudice can be discouraging and interfere with a student's willingness to perform a task to capacity, as well as his or her beliefs and judgments, high and low identifying individuals can diverge in how they interpret and react to the possibility of prejudice. Six hypotheses were investigated. Additional analyses were conducted to seek further insight into the reactions of the participants to prejudice within an academic context.

(H1) It was hypothesized that, while there would not be a significant difference in the number of words produced on the Controlled Oral Word Association Test (COWAT) between the high and low Metis identifiers when both groups were in the prejudiced condition, the high identifiers would produce fewer words when they are in both the unknown attitudes and non-prejudiced conditions.

(H2a) It was hypothesized that, while there would not be a significant difference in the overall attitudes of the high and low identifiers on the total score of the Selection Attitudes (SA) Scale when both groups are in the prejudiced condition, the high identifiers would report less overall optimism than the low identifiers when they are in both the unknown attitudes and non-prejudiced conditions.

Turning to the hypotheses involving the subscales of the SA Scale, it was hypothesized that, even though there would not be a significant difference between the high and low identifiers in their ratings on the (H2b) expectations, (H2c) motivation, valuing (H2d), and (H2e) fairness subscales when both groups are in the prejudiced condition, the high identifiers would report less favourable ratings on the three subscales when they are in both the unknown attitudes and non-prejudiced conditions.

(H 3) It was hypothesized that, even though there would not be a significant difference in how the high and low identifiers evaluated the manager on the Stereotyping of Whites (SW) Scale when both groups are in the prejudice condition, the high identifiers would evaluate the non-Aboriginal manager more negatively when they are in both the unknown attitudes and non-prejudiced conditions.

2.6 Data analysis

(1) The items of the Metis Identity (MI) Scale were adapted from scales used in past research to measure the extent to which a member of a social group identifies with his or her group. The Selection Attitudes (SA) Scale was modeled on a scale developed by Eccleston and Major (2010) and modified for the Metis participants. It was used to measure the participants' expectations of being hired, the value they places on being hired, their motivation to perform the COWAT to capacity, and their beliefs about the manager's sense of fairness. Given the importance of the scales to the subsequent analyses, the decision was to conduct a detailed psychometric investigation to analyze and refine the characteristics of the two scales. A reliability analysis was conducted on each scale. A factor analysis was performed on each scale;

(2) In order to test Hypothesis 1, a 2 X 3 analysis of variance (ANOVA) was conducted to examine the effect of Metis identity (high, low) and the prejudice factor on the Controlled Oral Word Association Test (COWAT). A series of secondary ANOVAs were conducted to examine the effects of gender, background (urban, rural), and the prejudice factor on the COWAT;

(3) In order to test Hypotheses 2a, 2b, 2c, 2d, and 2e, a 2 X 3 ANOVA was conducted to examine the effect of Metis Identity (high, low) and the prejudice factor on the total scores of the Selection Attitudes (SA) Scale and its subscales. A series of secondary ANOVAs were conducted to examine the effects of gender, background (urban, rural), and the prejudice factor on the total score of the SA Scale and its subscales;

(4) In order to test Hypothesis 3, a 2 X 3 ANOVA was performed to examine the effect of Metis identity (high, low) on the total score of the Stereotyping of Whites (SW) Scale. A series of secondary ANOVAs were conducted to examine the effects of gender, background (urban, rural) and the prejudice factor on the total score of the SW Scale;

(5) The above analyses of variance involved the testing of various null hypotheses. The rejection of a null hypothesis lead to the conclusion that there was a significant difference

between sample means. When comparing sample means, the researcher must be alert to two types of error: Type 1, which deals with the problem of finding a difference that does not exist, and Type II, which deals with the problem of not finding a difference that does exist (Howell, 1997). Power analyses were conducted using the Univariate Analysis procedure in the Statistical Package of the Social Sciences (SPSS 22).

An important issue in any discussion of multiple comparison procedures is the question of the probability of a Type I error (Howell, 1997). Familywise error rate is the probability of making one or more false discoveries (Type I errors) among all the hypotheses when performing multiple hypotheses tests. The correlational matrix contains 144 comparisons. As the number of comparisons in a set of comparisons increase, the probability of a Type I error also increases. For example, if alpha = .05 per comparison, and four comparisons are made, then the probability of a Type I error increases to 23% since $1 – (1 – \text{alpha})^4 = .23$. Howell (1997) suggests that one way to control the Familywise error r ate is to use a more conservative level of α for each comparison, for example, .001. Therefore, caution will be taken when interpreting any correlation in the matrix with a significant value of .002 to .05;

(6) Secondary to the main hypotheses, multiple regression analyses were conducted to explore the relationship between the Controlled Oral Word Association Test (COWAT) and reported motivation with those independent variables which were significantly correlated with the COWAT. Prior to conducting the multiple regression analyses, Pearson's product moment correlations were conducted between four demographic variables (i.e., age, gender, background, and length of post-secondary education) and the four scales used in the present study: Controlled Oral Word Association Test (COWAT), Metis Identity (MI) Scale, Selection Attitudes (SA) Scale (subscales: expectations, motivation, fairness) and Stereotyping of Whites (SW) Scale.

Chapter 3. RESULTS

3.1. Introduction

The results are presented in three main sections. The first section involves a psychometric investigation of the Metis Identity (MI) Scale and the Selection Attitudes (SA) Scale. The second section presents the findings from an experimental analysis of the data obtained from the students, while testing the study's hypotheses. The third section presents the findings from a series of multiple regression analyses that examines (1) the relationship between the Controlled Oral Word Association Test (COWAT) and various independent variables; (2) the relationship between reported motivation and various independent variables.

3.2 Psychometric Investigation of the Metis Identity (MI) Scale and Selection Attitudes (SA) Scale

A detailed psychometric analysis was conducted on the Metis Identity (MI) Scale. The MI Scale was administered on two occasions: (1) pilot study (N = 35), and (2) main study (N = 165). A reliability analysis was performed on the sample from each occasion. In addition, a factor analysis (FA) was conducted on the MI Scale that was administered on the second occasion to the full-sample of students. The FA helped identify problematic items while assessing the construct validity of the items of the MI Scale. In addition, a reliability analysis was conducted on the four subscales of the Selection Attitudes (SA) Scale. A factor analysis was also conducted on the SA Scale. A factor analysis helped identify problematic items, while assessing both the construct and discriminant validity of the four subscales of the SA Scale.

3.2.1 Pilot Study: Metis Identity (MI) Scale

Prior to conducting the main study, a pilot study was conducted to assess the reliability of the Metis Identity (MI) Scale. Thirty-five Metis post-secondary students participated in the pilot study (Male $N = 7$; Female $N = 25$; 3 missing). The eight items of the Scale formed a reliable scale with a Cronbach's alpha of 0.83, which would be considered to be good, given the guidelines provided by Cortina (1993): $\alpha \geq .90$ (excellent); $.7 \leq \alpha < .9$ (good); $.6 \leq \alpha < .7$ (acceptable); $.5 \leq \alpha < .6$ (poor), and; $\alpha < .5$ (unacceptable).

3.2.2 Full-Sample Reliability Analysis of the Metis Identity (MI) Scale

Subsequent to the pilot study, the MI Scale was administered to the full-sample of students ($N = 165$; Male $N = 41$, Female $N = 122$) who participated in the main study. The eight items formed a reliable scale with a Cronbach's alpha of 0.87, which would be considered good,

given the guidelines provided by Cortina (1993).

3.2.3 Metis Identity (MI) Scale: Split-Half Method and Spearman-Brown Formula

The split-half method of estimating reliability involves administering the test to a group of individuals, splitting the test in half, then correlating scores on one half of the test with scores from the other half. The eight-item Metis Identity (MI) Scale was split into two subtests, the first one made up of items 1 through 4 and the second made up of items 5 through 8. For the split-half correlation, r (163) = .71, $p < .005$. The Spearman-Brown formula estimates how much a reliability coefficient might change or improve if a test is lengthened by a certain factor (i.e., doubled): $r_{S\text{-}B}$ (163) = .83.

3.2.4 General Statistics for the Metis Identity (MI) Scale

Table 3.1 summarizes various properties of the MI Scale. Figure 3.1 reports the frequency histogram for the Scale.

The Scale has five response options. The mean for the original Scale was 3.7, with a range from 1.9 to 5.0. Since the Scale has five response options where an equal distance is assumed between options, a mean of 3.7 indicated that the students moderately identified with being a Metis. The most frequent response was 4.0, which indicated that these students "somewhat agreed" that their Metis identity was important to them. There was no significant mean difference in score between the male (M = 3.8, SD = .62) and female (M = 3.7, SD = .67) participants, t (159) = .80, p = .43. There was no significant mean difference between those students who reported an urban background (M = 3.7, SD = .64) and those who reported a rural background (M = 3.7, SD = .65), t (150) = .01, p = .99. There was no significant correlation between the age of the students and the MI Scale, r (161) = -.05, p = .95. The skewness of the distribution is -.51 (SE = .19). According to Bell (2009) the skewness value is significant if there is more than 1.96 standard errors of skew. The value at which skewness would be considered significant is +/- 1.96 (.19) = +/- .37. Since the skewness is -.51, the distribution of scores had a longer than (statistically) normal tail below the mean score. Turning to kurtosis, the value at which kurtosis would be considered significant is 1.96 (.38) = .74. Since the kurtosis is -.50, the kurtosis value is not significant, indicating that the distribution is not substantially peaked or flattened compared to a standard normal distribution.

Table 3.1

Descriptive Statistics for the Original Metis Identity Scale

	Mean	*SD*	Median	Mode	Skewness	*SE*	Kurtosis	*SE*
Metis Identity Scale	3.7	.66	3.8	4.0	-.51	.19	-.50	.38

Table 3.2 reports descriptive statistics for each item of the original MI Scale. As seen in the table, the mean responses were either in the mid-range (3.0 to 3.9) or the "somewhat agree" range (4.0 to 4.9).

Figure 3.1

Frequency Histogram of Original Metis Identity Scale

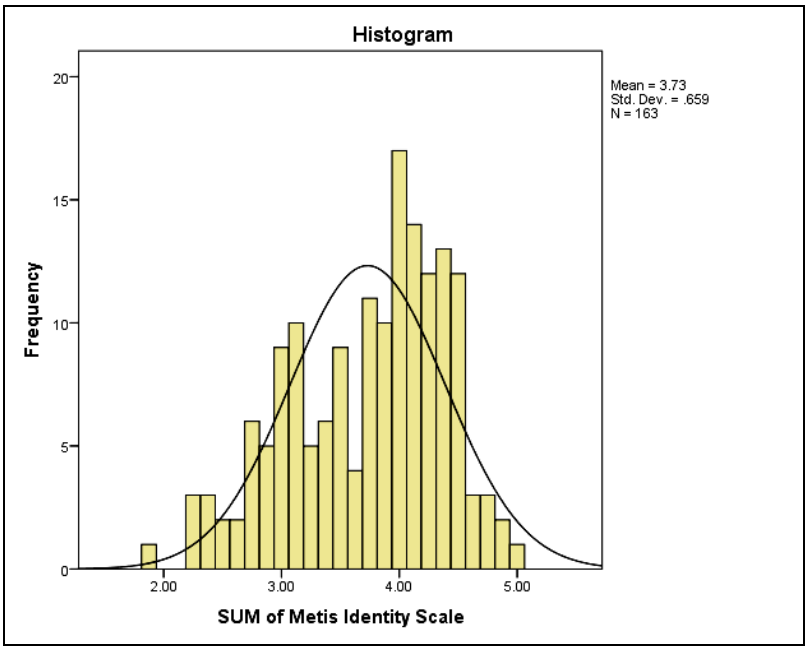


Table 3.2

Descriptive Statistics for Each Item of the Original Metis Identity Scale

Metis Identity Scale	Mean	*SD*	*N*
Being a Metis is an important part of my self-image	4.0	1.0	163
Being a Metis contributes to what kind of person I am	3.8	1.0	163
Being a Metis has very little to do with how I feel about myself	3.2	1.1	163
I identify with other Metis people	3.6	1.0	163
I see myself as a Metis person	4.0	1.0	163
I am glad to be a Metis	4.4	.92	163
I feel strong ties with the Metis people	3.4	1.1	163
How much do you identify yourself as Metis?	3.9	1.0	163

Table 3.3 reports the correlation matrix for each of the eight items of the Metis Identity (MI) Scale. All of the correlations but one were significant. There was no significant correlation between "Being Metis has very little to do with how I feel about myself" and "I am glad to be a Metis:" r (161) = .11, p = .16. Except for this one item, all of the correlations were significant and positive, which provides another indication of response consistency.

Table 3.3

Correlation Matrix for Original Metis Identity Scale

	Self-image	Contributes	Little	Identify with others	See myself	Glad to be Metis	Strong ties	How much I identify
Important to self-image	-							
Contributes to kind of person I am	.73***	-						
Little to do with how I feel about myself	.23***	.30***	-					
Identify with other Metis	.38***	.40***	.30***	-				
See myself as Metis	.42***	.45***	.26***	.58***	-			
Glad to be Metis	.41***	.42***	.11	.53***	.60***	-		
Strong ties with Metis	.41***	.48***	.38***	.60***	.44***	.44***	-	
How much I identify	.50***	.55***	.32***	.55***	.56***	.56***	.63***	-

*** $p < .001$

3.2.5 Exploratory Factor Analysis of the Metis Identity (MI) Scale

3.2.6 Preliminary Procedure

Exploratory factor analysis can be used to assess the construct validity of an instrument during its initial development, and helps the developer identify items that are poor indicators of their intended construct, and which are candidates for removal from an instrument.

Worthington and Whittaker (2006) offered the following guidelines for deciding whether or not a sample size is sufficiently large for conducting a factor analysis: while larger samples will likely result in more stable correlations among variables, sample sizes of 150 to 200 are likely to be adequate, especially with data sets containing communalities higher than .50. The present study had a sample size of 165.

Prior to performing factor analysis it is important to determine whether factors can be extracted from the data (Tabachnick & Fidell, 1996). Bartlett's Test of Sphericity was used to determine sample adequacy. The Test of Sphericity tests the hypothesis that there are no significant correlations in the correlation matrix. Rejection of the hypothesis ($p < .05$) indicates that there are enough significant correlations for factors to be extracted.

Turning to extraction methods, the two most commonly used are principal-components analysis (PCA) and common-factors analysis (FA). Worthington and Whittaker (2006) recommend FA for the development of new scales. While there are several extraction techniques, the researchers recommend maximum-likelihood extraction for the development of new scales.

Turning to rotation methods, Worthington and Whittaker (2006) suggest that when a developer assumes that a set of factors will be correlated, the developer should use oblique rotation.

Item deletion is a common part of the process. Communalities were inspected to see if the variables were well defined by the solution. Communality values represent the proportion of variance in a variable that is predicted from the factor(s) in the solution (Tabachnick & Fidell, 1996). If communalities for a particular variable are low (between 0.0 to 0.4), then that variable may struggle to load significantly on any factor, and is a candidate for removal. When interpreting a factor, only variables with factor loadings of .32 and above are interpreted (Tabachnick & Fidell, 1996). Comrey and Lee (1992) suggest that loadings in excess of .71 are excellent, .63 very good, .55 good, .45 fair, and .32 is poor.

3.2.7 Factor Analysis Results of the Metis Identity (MI) Scale

Initially, the factorability of the eight items of the MI Scale were examined. Bartlett's Test of Sphericity was significant showing that the correlation matrix contained factors to be extracted, χ^2 (28) = 634.6, $p < .005$.

Common factor analysis (FA) was used with oblique rotation (direct oblimin). The eigenvalue for the first factor was 4.3, and after the first factor changes in the eigenvalue were small (less than one). This was taken as evidence that the solution involved one factor. The levelling off of eigenvalues on the scree plot (Figure 3.2) after the first factor was taken as additional evidence that the FA extracted one factor. The one factor solution explained 48% of the total variance in the solution.

Table 3.4 reports the communalities and factor loadings for the solution. Item communalities can be a useful guide for item deletion. Items with low communalities (e.g., less than .40) are not highly correlated with one or more factors in the solution. As seen in Table 3.4, the communality for item 3 "Being a Metis has very little to do with how I feel about myself" was .15, showing that the item was poorly correlated with its factor. The item's factor loading was .28, which is below the recommended minimum of .32. As a result, item three was a poor indicator of Metis identity and a candidate for removal from its scale. However, seven of the eight items were good indicators of Metis identity.

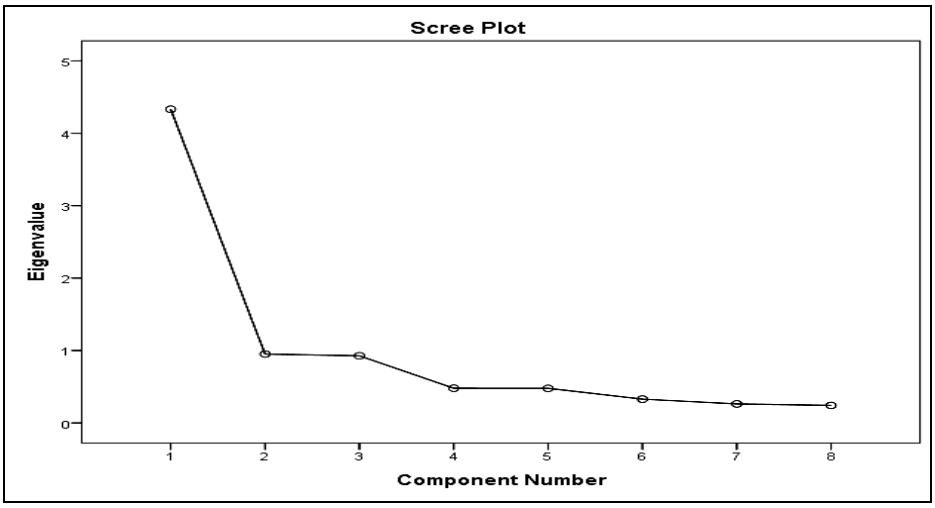
Table 3.4

Factor Loadings and Communalities Based on a Factor Analysis with Oblique Rotation for Eight Items of the Original Metis Identity Scale (N = 165)

Metis Identity Scale	Factor 1	Communality
1. Being a Metis is important part of my self-image	.61	.37
2. Being a Metis contributes to what kind of person I am	.66	.43
3. Being a Metis has very little to do with how I feel about myself	.28	.15
4. I identify with other Metis people	.70	.49
5. I see myself as a Metis person	.81	.66
6. I am glad to be a Metis	.66	.44
7. I feel strong ties with the Metis people	.76	.57
8. How much do you identify yourself as Metis?	.85	.73

Figure 3.2

Scree Plot for Eigenvalues Based on a Factor Analysis with Oblique Rotation For Eight Items of the Original Metis Identity Scale (N = 165)



3.2.8 Reliability Analysis of the Selection Attitudes (SA) Scale

A full-sample (N = 165) reliability analysis was conducted on the Selection Attitudes (SA) Scale. The analysis showed that the reliability coefficients of two subscales of the SA Scale were unacceptably low: valuing and fairness subscales (α = .29 and α = .23 respectively).

Turning first to the valuing subscale, the inter-item correlations of the three items of the subscale were examined (Table 3.5). According to de Vaus (2014), if an inter-item correlation is below r = .3, the item should be removed from the scale. The inter-item correlation for each item was less than .3. Since the alpha for the subscale would only be .47 with the removal of the first item, and since this coefficient was still below an acceptable level of 0.6, the subscale is a candidate for removal from further consideration.

Table 3.5

Item Analysis for Valuing Subscale

Item	Corrected Item-Total Correlation	Alpha if item deleted
It is important to me to be hired	-.01	.47
Whether I am selected as co-manager will not have an effect on me	.18	.10
It doesn't matter to me one way or the other if I am chosen as co-manager	.28	.18

Turning to the fairness subscale, the alpha coefficient of the reliability analysis of the subscale was α = .23, which is poor. The inter-item correlations of the four items of the subscale were examined (Table 3.6). Based on these analyses, one item ("I believe that the manager's judgments of me will be biased") was a candidate for removal. Although the reliability coefficient for the remaining three items is poor (α = .60), it was marginally acceptable.

Table 3.6

Item Analysis for Fairness Subscale

Item	Corrected Item-Total Correlation	Alpha if item deleted
I believe that the manager's judgments of me will be biased	.20	.60
I believe that the manager will act justly toward me	.27	-.02
I believe that the manager will judge my work fairly	.16	.10
I believe that the manager's judgments of me will be impartial	.38	-.17

Table 3.7 reports the reliability coefficients for the final versions of the Metis Identity (MI) Scale and Selection Attitudes (SA) Scale as well as the Stereotyping of Whites (SW) Scale.

Table 3.7

Coefficient Alpha of Metis Identity Scale, Selection Attitudes Scale and Stereotyping of Whites Scale

Scale	*N* items	*N*	α
Pilot Study			
Metis Identity Scale	8	35	.83
Primary analysis			
Metis Identity Scale	7	165	.87
Selection Attitudes Scale			
Expectations	2	164	.91
Motivation	2	165	.70
Fairness	3	164	.60
Stereotyping of Whites			
Attributes	12	141	.74
Favourability of attributes	12	137	.95

3.2.9 Factor Analysis of the Selection Attitudes (SA) Scale

As reported in the above reliability analysis, several items of the Selection Attitudes (SA) Scale were unreliable and were candidates for removal. Common factor analysis (FA) was performed on the original 11 items of the SA Scale in order to determine whether or not the items loaded on a common factor. If not, then the FA provided additional evidence that an item was a poor indicator of its construct, and could be eliminated from further consideration.

3.2.10 Factor Analysis Results of the Selection Attitudes (SA) Scale

The Bartlett Test of Sphericity was significant, indicating sampling adequacy, χ^2 (55) = 417.5, $p < .005$.

Common factor analysis (FA) was used with oblique rotation (direct oblimin). Four factors were extracted. The retained eigenvalues showed that the first factor explained 19.5% of the variance, the second factor 12.4%, the third factor 9%, and the fourth factor explained 3% of the variance. The scree plot shown in Figure 3.3 also suggested a four factor solution.

Figure 3.3

Scree Plot for Eigenvalues Based on a Factor Analysis with Oblique Rotation For Eleven Items of the Selection Attitudes Scale (N = 165)

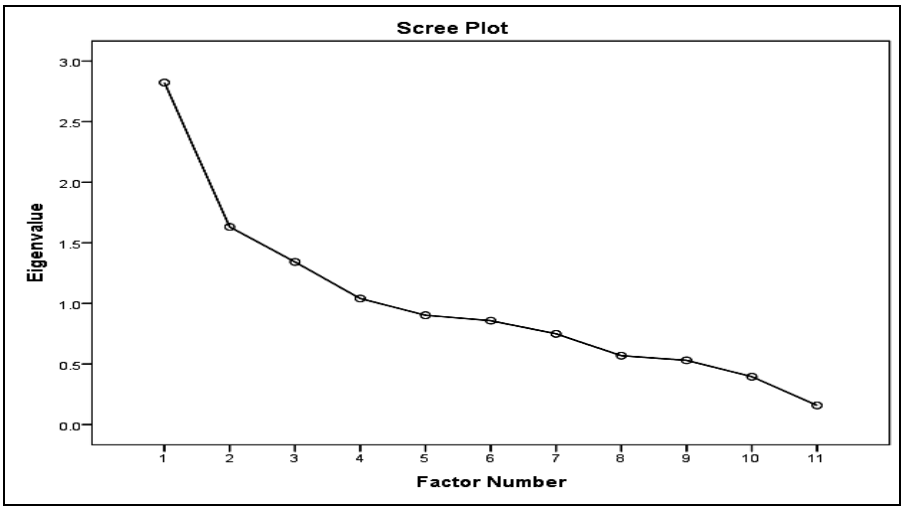


Table 3.8 reports the communalities for the eleven items of the SA Scale. As seen in the table, five items showed low communalities (less than 0.4). The items included the valuing subscale as well as two items from the fairness subscale. Items with low communalities may struggle to load onto a factor and are, therefore, candidates for removal from a scale.

Table 3.9 reports the factor loadings for the SA Scale. When interpreting a factor, only

variables with factor loadings of .32 and above are interpreted (Tabachnick & Fidell, 1996). As seen in the table, the two items of the expectations subscale loaded most strongly onto a single factor. Similarly, the two items from the motivation subscale loaded onto a single factor. Two items from the valuing subscale did not load on any of the factors. Although one item from the valuing subscale ("It is important to me to be hired") loaded onto the same factor as the two items from the motivation subscale, since this item was not intended to measure motivation, and since its low communality value (.14) and its inter-item correlation (r = -.01) were both low, the final decision was to remove the item from further consideration. Similarly, as seen in Table 3.9, one item from the fairness subscale ("I believe that the manager's judgments of me will be biased") loaded onto the same factor as the two items from the expectations subscale. Since this item was not intended to measure expectations, and since deleting this item would raise the alpha for the fairness subscale to an acceptable level of α = .60, the decision was to remove the item from further consideration. Although one item from the fairness subscale ("I believe that the manager will judge my work fairly") loaded onto two factors, it loaded most strongly onto the third factor.

Table 3.8

Communalities Based on a Factor Analysis with Oblique Rotation for Eleven Items from the Selection Attitudes Scale (N = 165)

Selection Attitudes Scale	Communalities
Expectations subscale	
I believe that the manager's impression of me will be positive	.99
I believe the manager will hire me	.73
Valuing subscale	
It is important to me to be hired	.14
Whether I'm selected will not have an effect on me	.08
It doesn't matter to me if I am hired as co-manager	.17
Motivation	
I felt motivated to perform well on the task	.50
I trued as hard as I could to do well on this task	.77
Manager's fairness	
I believe that the manager's judgements of me will be biased	.20
I believe that the manager will act justly to me	.65
I believe that the manager will judge my work fairly	.53
I believe that the manager's judgements of me will be impartial	.04

Table 3.9

Factor Loadings Based on a Factor Analysis with Oblique Rotation for Eleven Items from the Selection Attitudes Scale (N = 165)

	Factors			
Selection Attitudes Scale	1	2	3	4
Expectations subscale				
I believe that the manager's impression of me will be positive	**.82**	-.04	-.28	-.43
I believe the manager will hire me	**.78**	.03	-.13	.19
Valuing subscale				
It is important to me to be hired	.04	.35	.01	-.05
Whether I'm selected will not have an effect on me	.10	-.26	.02	-.07
It doesn't matter to me if I am hired as co-manager	.11	-.21	.30	-.08
Motivation				
I felt motivated to perform well on the task	.26	**.64**	.04	-.06
I trued as hard as I could to do well on this task	-.01	**.73**	-.01	-.41
Manager's fairness				
I believe that the manager's judgements of me will be biased	.35	.02	.02	.15
I believe that the manager will act justly to me	-.04	.19	**.81**	.16
I believe that the manager will judge my work fairly	-.40	-.15	**.50**	-.16
I believe that the manager's judgements of me will be impartial	.01	-.04	.01	.19

3.2.11 Discriminant Validity of the Selection Attitudes (SA) Scale

Discriminant validity refers to the extent to which factors are uncorrelated and therefore distinct from each other (Tabachnick & Fidell, 1996). The rule is that variables should relate more strongly to their own factor than to another factor. Correlations between factors should not exceed 0.7 because a larger correlation indicates too much shared variance (Tabachnick & Fidell, 1996). Given this guideline, as seen in Table 3.10, the finding provided evidence of the discriminant validity of the final three subscales used in the present study: expectations, motivation, and manager's fairness.

Table 3.10

Factor Correlation Matrix for the Modified Selection Attitudes Scale *(N = 165)*

Factor	1	2	3
1. Expectations	-	-.13	-.18
2. Motivation	-.13	-	-.02
3. Fairness	-.18	-.02	-

3.3 Experimental Analyses of Full-Sample Data and Testing Hypotheses

The results section includes both primary and secondary analyses. The primary analyses tested the six research hypotheses, which examined the reactions of the high and low Metis identifiers in each of three prejudiced conditions. Also included were a series of analyses of variance that were secondary to the main analyses, but provide further insight into the reactions of the participants. This analysis examined the effects of gender, background, and prejudice.

3.3.1 Controlled Oral Word Association Test (COWAT): Sample Description

The male participants produced an average of 31.0 (SD = 11) words on the COWAT. The female respondents produced an average of 31.2 (SD = 11) words. There was no significant male/female difference on the number of words produced, t (159) = -.58, p = .56. Nor was there a significant urban/rural difference (M = 32.0, SD = 12 and M = 30.0, SD = 10 respectively) on the COWAT, t (151) = -1.0, p = .30. There was a positive correlation between years of post-secondary education and the COWAT, r (165) = .18, $p < .05$. There was no significant correlation between age and the COWAT, r (161) = .10, p = .25

3.3.2 Performance on the Controlled Oral Word Association Test (COWAT) by Gender, Background and Prejudice Factor

An analysis of variance (ANOVA) was conducted to examine the effect of gender, background (urban, rural) and the prejudice factor on the number of words produced on the COWAT. As seen in Table 3.11, there were no significant interaction effects. There was one significant main effect for background, F (1,152) = 4.2, $p < .04$, $\eta^2 = .03$. An examination of the means showed that the mean for those students from an urban background (M = 33.5, SD = 1.5) was significantly larger than the mean for the students from a rural background (M = 28.7, SD = 1.7). The finding showed that, when gender and the prejudice factor were ignored, those students from an urban background produced more words on the COWAT than did the students

who reported having a rural background.

Table 3.11

Controlled Oral Word Association Test in Relation to Gender, Background, and Prejudice

Variable	*DF*	*F*	Sig	η^2
Gender	1,152	.001	.99	-
Background (urban/rural)	1,152	4.2	.04	.03
Prejudice factor	2,152	.15	.86	-
Gender X Background	1,152	3.1	.08	-
Gender X Prejudice Factor	2,152	.22	.80	-
Background X Condition	2,152	1.1	.34	-
Gender X Background X Prejudice factor	2,152	.68	.51	-

3.3.3 Hypothesis One: Performance on the Controlled Oral Word Association Test (COWAT) by High and Low Metis Identifiers and Prejudice Factor

It was hypothesized that, while there would not be a significant difference in score on the COWAT between the high and low identifiers in the prejudiced condition, the low identifiers would produce more words on the COWAT in both the unknown attitudes and non-prejudiced conditions.

A 2 x 3 analysis of variance (ANOVA) was conducted to examine the effect of Metis identity (high, low) and the prejudice factor on the number of words produced on the COWAT. There was no significant interaction between Metis identity and the prejudice factor on the COWAT, F (2,160) = .07, p = .92. There was no significant main effect for identity, F (1,160) = .02, p = .90. Nor was there a main effect for the prejudice factor, F (2, 160) = 1.1, p = .32. The hypothesis was not supported. It was anticipated that there would not be a significance difference in score between the high and low identifiers in the prejudiced condition. However, there were no significant differences in score between the two groups of students in both the unknown attitudes and non-prejudiced conditions that would give support to the hypothesis.

3.3.4 Performance on the Selection Attitudes (SA) Scale (total score) by Gender, Background and Prejudice Factor

An analysis of variance (ANOVA) was conducted to examine the effect of gender, background (urban, rural) and the prejudice factor on the total score of the Selection Attitudes (SA) Scale. As seen in Table 3.12, there were no significant interaction or main effects. The findings showed that the scores on the Selection Attitudes (SA) Scale were independent of the

students' gender, background (urban/rural) and the degree of prejudice they were lead to believe was occurring in their employment scenario.

Table 3.12

Selection Attitudes Scale in Relation to Gender, Background, and Prejudice

Variable	*DF*	*F*	Sig	η^2
Gender	1,150	.54	.46	-
Background (urban/rural)	1,150	.61	.43	-
Prejudice factor	2,150	.64	.52	-
Gender X Background	1,150	1.2	.26	-
Gender X Prejudice factor	2,150	.14	.86	-
Background X Prejudice factor	2,150	.80	.45	-
Gender X Background X Prejudice factor	2,150	.04	.96	-

3.3.5 Performance on the Expectations, Motivation, and Fairness Subscales of the Selection Attitudes (SA) Scale by Gender, Background and Prejudice Factor

The Selection Attitudes (SA) Scale consisted of three subscales: expectations of being hired, motivation to do one's best on the COWAT, and beliefs about the manager's sense of fairness. An analysis of variance (ANOVA) was conducted to examine the effect of gender, background, and degree of prejudice on each of the three subscales. As seen in Table 3.13, there were two significant findings. There was a significant interaction between gender and background on the expectations subscale, F (2,151) = 4.8, $p < .05$, $\eta^2 = .03$ (see Figure 3.4). A subsequent test of simple main effects found that the mean for the rural males (M = 8.4, SD = 3.4) was significantly smaller than the mean for the rural females (M = 10.7, SD = 2.7), t (64) = -2.7, $p < .01$. The finding showed that the rural males had a lower expectation of being hired than did the rural females. There was a significant main effect for the prejudice factor on the expectations subscale, F (2,151) = 3.5, $p < .05$, $\eta^2 = .05$. The subsequent test of main effects found that the mean of the prejudiced condition (M = 8.5, SD = 3.7) was significantly lower than the mean scores of both the unknown (M = 10.8, SD= 2.8) and non-prejudiced conditions (M = 10.5, SD = 2.5), F (2,163) = 8.6, $p < .001$. The finding indicated that, when ignoring the effects of gender and background, the students in the prejudice condition reported a lower expectation of being hired than did the students in both the unknown attitudes and non-prejudiced conditions.

Table 3.13

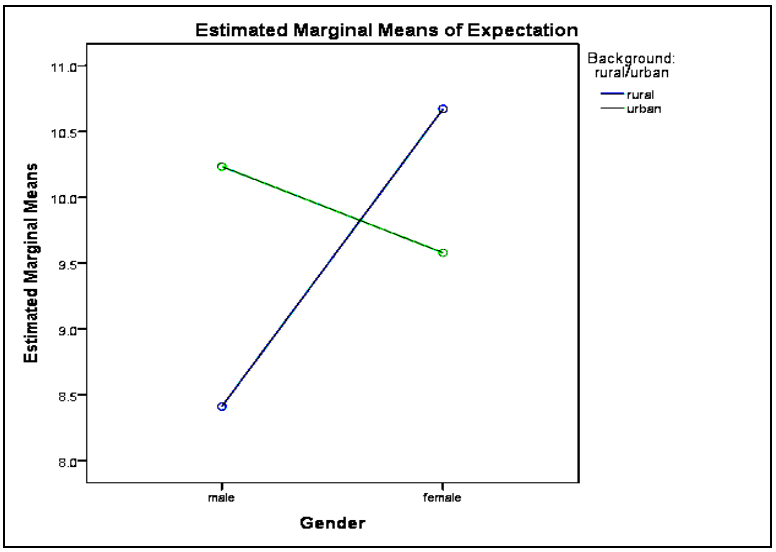
Expectations, Motivation, Fairness Subscales in Relation to Gender, Background, and Prejudice

Variable	*DF*	*F*	Sig	η^2
Expectations				
Gender	1,151	1.2	.26	-
Background (urban/rural)	1,151	.38	.54	-
Prejudice factor	2,151	3.5	.03*	.05
Gender X Background	2,151	4.8	.03*	.03
Gender X Prejudice factor	2,151	.31	.74	-
Background X Prejudice factor	2,151	1.1	.32	-
Gender X Background X Prejudice factor	2,151	.90	.41	
Motivation				
Gender	1,152	.28	.60	-
Background (urban/rural)	1,152	1.5	.22	-
Prejudice factor	2,152	2.3	.10	-
Gender X Background	1,152	.55	.46	-
Gender X Prejudice factor	2,152	.28	.75	-
Background X Prejudice factor	2,152	1.2	.30	-
Gender X Background X Prejudice factor	2,152	.37	.69	-
Fairness				
Gender	1,152	.48	.48	-
Background (urban/rural)	1,152	.28	.60	-
Prejudice factor	2,152	.08	.92	-
Gender X Background	1,152	.31	.57	-
Gender X Prejudice factor	2,152	.38	.68	-
Background X Prejudice factor	2,152	.38	.68	-
Gender X Background X Prejudice factor	2,152	.67	.51	-

* $p < .05$

Figure 3.4

Gender X Background Interaction on Expectations Subscale



3.3.6 Hypothesis Two A: Performance on the Selection Attitudes (SA) Scale by High and Low Metis Identifiers and Prejudice Factor

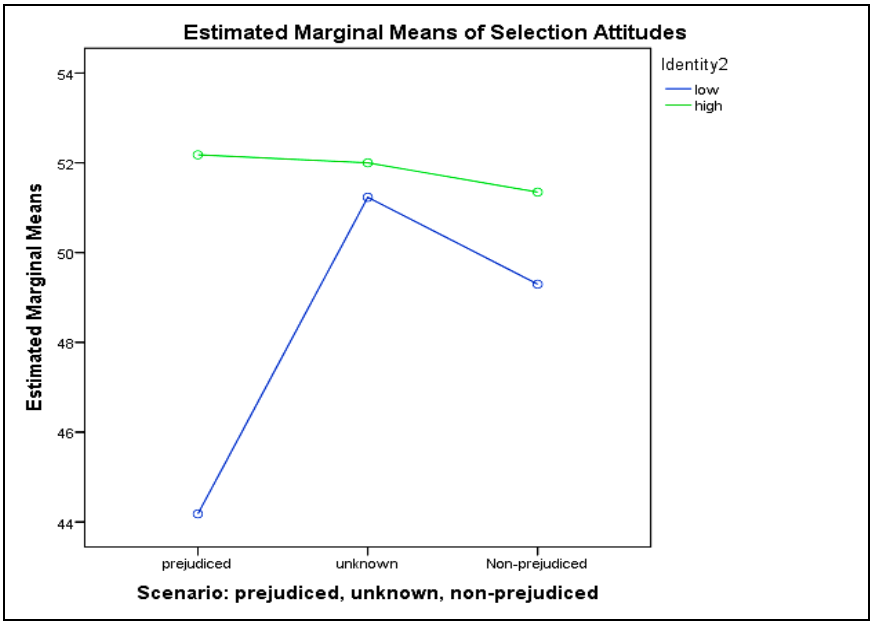
It was hypothesized that, while there would not be a significant difference in score between the high and low identifying Metis students in the prejudiced condition, the low identifiers would report a most positive overall outlook than the high identifiers in both the unknown attitudes and non-prejudiced conditions.

An analysis of variance (ANOVA) was conducted examining Metis identity (high, low) and the prejudice factor on the total score of the Selection Attitudes (SA) Scale. There was a significant interaction effect, F (2,160) = 3.1, p = .05, η^2 = .04 (See Figure 3.5). A post hoc examination of simple main effects showed that the mean for the high identifiers (M = 52.2, SD = 13.5) was larger than the mean for the low identifiers (M = 44.2, SD = 7.5) within the prejudiced condition, t (54) = -2.7, p < .01. The finding showed that the high identifiers within the prejudiced condition reported a more positive overall outlook on the SA Scale than did the low identifiers within the prejudiced condition. There was a main effect for identity, F (1,160) = 7.8, p < .01, η^2 = .05. Examination of the grand means showed that the mean for the low identifying students (M = 48.2 , SD = 7.2) was smaller than the mean for the high identifying students (M = 51.8, SD = 9.2). There was no significant main effect for the prejudice factor, F (2,160) = 2.5, p = .08. The hypothesis was not supported by the data. It was

not anticipated that there would be a significant difference in score between the high and low identifiers within the prejudiced condition. Furthermore, there were no significant differences in score between the high and low identifiers within the unknown attitudes and non-prejudiced conditions that would lend support to the hypothesis.

Figure 3.5

Identity X Prejudice Interaction on Selection Attitudes (SA) Scale



3.3.7 Hypothesis Two B: Performance on the Expectations Subscale by High and Low Metis Identifiers and Prejudice Factor

It was hypothesized that, while there would not be a significant difference in the expectations of the high and low identifiers in the prejudiced condition, the low identifiers would report a significantly greater expectation of being hired than the high identifiers in both the unknown attitudes and non-prejudiced conditions.

An analysis of variance (ANOVA) was conducted examining the effects of Metis identity (high, low) and the prejudice factor on the student's expectations of being hired. There was no significant interaction effect, F (2,161) = .42, p = .65. There was no significant main effect for identity, F (1,161) = 2.4, p = .11. There was a main effect for the prejudiced condition, F (2,161) = 8.3, p < .001, η^2 = .10. The post-hoc test indicated that the mean for the prejudiced condition (M = 8.5, SD = 3.7) was significantly smaller than the means for both the unknown (M = 10.7, SD = 2.8) and non-prejudiced (M = 10.5, SD = 2.5) conditions, F (2,163) = 8.6,

$p < .001$. The finding showed that, when ignoring the effects of identity, the students in the prejudiced condition reported a lower expectation of being hired than did the students in both the unknown attitudes and non-prejudiced conditions. The hypothesis was not supported by the data. As expected, there was no significant difference in the expectations of the high and low identifiers within the prejudiced condition. However, there was no significant difference in score between the high and low identifiers in both the unknown attitudes and non-prejudiced conditions that would lend support to the hypothesis.

3.3.8 Hypothesis Two C: Performance on the Motivation Subscale by High and Low Metis Identifiers and Prejudice Factor

It was hypothesized that, while there would not be a significant difference in reported motivation between the high and low identifiers in the prejudiced condition, the low identifiers would report higher levels of motivation than the high identifiers in both the unknown attitudes and non-prejudiced conditions.

An analysis of variance (ANOVA) was conducted examining the effects of Metis identity (high, low) and degree of prejudice on the students' reported motivation. There was not a significant interaction effect, F (2,162) = .21, p = .80. There was a significant main effect for identity, F (1,163) = 12.9, p = .001, η^2 = .07. An examination of the grand means showed that the mean for the high identifying students (M = 12.5, SD = 2.4) was larger than the mean for the low identifying students (M = 11.4, SD = 2.4). The finding showed that, when ignoring the effects of the prejudice factor, the high identifying participants reported more motivation than did the low identifiers. However the effect size was small, η^2 = .07. There was a main effect for prejudice, F (1,162) = 8.1, $p < .001$. Post hoc examination of the means indicated that, while the mean for the prejudiced condition (M = 11.2, SD = 2.2) was not significantly different from the mean for the non-prejudiced condition (M = 11.9, SD = 2.1), it was significantly lower than the mean of the unknown attitudes condition (M = 12.7, SD = 1.9), F (2,162) = 7.0, $p < .001$. The hypothesis was not supported by the data. As expected, reported motivation between the high and low identifying students was not significantly different within the prejudiced condition. However, there were also no significant differences in expectation score between the two groups of participants in both the unknown attitudes and non-prejudiced conditions.

3.3.9 Hypothesis Two D: Performance on the Fairness Subscale by High and Low Metis Identifiers and Prejudice Factor

It was hypothesized that, while there would be no significant difference in the fairness ratings of the high and low identifying students within the prejudiced condition, the low identifiers would rate the manager's sense of fairness more highly than the high identifiers in both the unknown attitudes and non-prejudiced conditions.

An analysis of variance (ANOVA) was conducted examining the effects of Metis identity (high, low) and degree of prejudice on the fairness subscale scores. There was not a significant interaction effect, F (2, 162) = .01, p = .99. There was no significant main effect for identity, F (1, 162) = 2.7, p = .10. There was no significant main effect for the prejudice factor, F (1, 162) = .46, p = .63. The hypothesis was not supported by the data. As expected, the high and low identifiers did not differ significantly in their fairness rating in the prejudiced condition. But there were no significant differences in score between the two groups within the unknown attitudes and non-prejudiced conditions that would lend support to the hypothesis.

3.3.10 Performance on the Stereotyping of Whites (SW) Scale by Gender, Background, and Prejudice Factor

An analysis of variance (ANOVA) was conducted examining the effect of gender, background, and degree of prejudice on the Stereotyping of Whites (SW) Scale. As seen in Table 3.14, there were no significant interaction effects. There was a significant main effect for the prejudiced factor, F (2,136) = 12.2, $p < .01$, $\eta^2 = .16$. The subsequent simple main effects test found that the mean for the prejudiced group (M = -2.2, SD = 7.3) was significantly lower than the means for both the unknown group (M = 4.2, SD= 6.4) and the non-prejudiced group (M = 4.1, SD = 6.3), F (2,145) = 15.2, $p < .0005$. The finding showed that, when ignoring the effects of gender and background, the students in the prejudiced group evaluated Whites more negatively than did the students in the unknown attitudes and non-prejudiced groups.

Table 3.14

Stereotyping of Whites Scale in Relation to Gender, Background, and Prejudice

Variable	*DF*	*F*	Sig	η^2
Gender	1,136	.68	.41	-
Background (urban/rural)	1,136	.04	.85	-
Prejudice factor	2,136	12.2	.01*	.16
Gender X Background	1,136	.63	.01	-
Gender X Prejudice factor	2,136	.07	.93	-
Background X Prejudice factor	2,136	.23	.80	-
Gender X Background X Prejudice factor	2,136	2.2	.11	-

* $p < .01$

3.3.11 Hypothesis Three: Performance on the Stereotyping of Whites (SW) Scale by High and Low Metis Identifiers and Prejudice Factor

It was hypothesized that, while there would be no significant difference in the evaluations of the high and low identifiers in the prejudiced condition, the high identifiers would nevertheless evaluate Whites more negatively than the low identifiers in both the unknown attitudes and non-prejudiced conditions.

An analysis of variance (ANOVA) was conducted examining the effects of Metis identity (high, low) and the prejudice factor on the SW Scale. There was no significant identity/prejudice interaction, F (2,143) = 1.2, p = .28. There was not a main effect for Metis identity, F (1,143) = .63, p = .43. There was a significant main effect for degree of prejudice, F (2,144) = 15.0, p = .001, η^2 = .18. The subsequent post hoc test showed that the mean for the prejudiced group (M = -2.2, SD = 7.3) was significantly less than the means for both the non-prejudiced and unknown attitudes groups (M = 4.1, SD = 6.4 and M = 4.2, SD= 6.4 respectively), F (2,145) = 15.2, $p < .005$. The finding showed that, when identity was ignored, the participants in the prejudiced condition evaluated Whites more negatively than did the participants in both the unknown attitudes and non-prejudiced conditions. The hypothesis was not supported by the data. As expected, the high and low identifiers did not differ significantly in their evaluations within the prejudiced condition. However, there were no significant differences between the two groups in the unknown attitudes and non-prejudiced conditions that would lend full support to the hypothesis.

3.3.12 Collapsing Levels of Unknown and Prejudice Conditions

The design of the current study included an ambiguous or unknown attitudes condition,

in which participants were not given any information about the manager's attitudes towards Aboriginal people in their employment scenario. The present study took mainly a 2 (high/low Metis identity) X 3 (prejudiced, unknown attitudes, non-prejudiced) approach. The latter two groups were collapsed into a single non-prejudice category and the analyses were repeated using a 2 X 2 approach, which has somewhat greater statistical power to generate significant findings. However, this modified analytical design did not affect the outcome of the results which were very similar to those reported above. The results are reported in Appendix A.

3.4 Correlational and Regression Analysis

3.4.1 Correlational Analysis

The section includes an exploratory multiple regression analysis that can provide insight into the reactions of the Metis participants, although the regression analyses are not directly related to the study's hypotheses.

An initial Pearson's product correlational analysis was conducted on four demographic variables (i.e., age, gender, background, and length of post-secondary education) and the four scales used in the present study: Controlled Oral Word Association Test (COWAT), Metis Identity (MI) Scale, Selection Attitudes (SA) Scale (subscales: expectations, motivation, fairness) and Stereotyping of Whites (SW) Scale. Table 3.15 summarizes the correlation coefficients.

The major issue in any discussion of multiple comparison procedures is the question of the probability of a Type I error (Howell, 1997). Familywise error rate is the probability of making one or more false discoveries (Type I errors) among all the hypotheses when performing multiple hypotheses tests. Note however, if $\alpha = .05$ for each of the sub-analyses, then the overall alpha is .23 since $1 - (1 - \alpha)^4 = 1 - (1 - .05)^3 = 0.23$. This means that the probability of rejecting the null hypothesis in any given comparison even when it is true (Type I error) is 23 %. Howell (1997) suggests that one way to control the familywise error rate is to use a more conservative level of α for each comparison, for example, .001. As seen in Table 3.15, although the critical value was set at .001, p-values of .05 are also reported.

There were fourteen significant correlations, nine of which were significant at the .001 level. There was a negative correlation between the age of the participants and their reported motivation suggesting that, as the respondents increased in age, their reported motivation to do their best on the COWAT decreased, $r\ (164) = -.16$, $p < .05$. There was a positive correlation

between the COWAT and length of post-secondary education indicating that those students with the most post-secondary education also produced more words on the COWAT, r (164) = .18, $p < .05$. There was a positive correlation between the prejudice factor and the Stereotyping of Whites (SW) Scale, r (164) = .37, $p < .001$. The finding indicated that those participants in the unknown and non-prejudiced conditions were more likely to positively evaluate the White manager than were the participants in the prejudiced condition. There was a positive correlation between the prejudice factor and the expectations subscale of the SA Scale, r (164) = .25, $p < .001$. The positive correlation showed that the participants in the unknown and non-prejudiced conditions tended to have the greatest expectation of being hired. There were two positive correlations between the COWAT and two subscales of the Selection Attitudes (SA) Scale. Turning first to the motivation subscale, the positive correlation indicated that those participants who reported to be the most motivated also tended to produce the most words on the COWAT, r (164) = .16, $p < .05$. Turning next to the fairness subscale, the positive correlation indicated that those students who most favourably judged the manager to be fair also produced more words on the COWAT, r (164) = .17, $p < .05$. There was a positive correlation between the Metis Identity (MI) Scale and the Selection Attitudes (SA) Scale, r (164) = .21, $p < .05$. The finding showed that the high identifying Metis students tended to report a more overall positive attitude (expectations, motivations, sense of manager's fairness) than did the low identifying students. There was a positive correlation between Metis identity and motivation, r (162) = .25, $p < .001$. The finding indicated that the high identifiers reported more motivation than did the low identifiers. There was a positive correlation between the Selection Attitudes (SA) Scale and the Stereotyping of Whites (SW) Scale, r (164) = .31, $p < .001$. The finding showed that those students with the more positive overall attitudes on the SA Scale tended to positively evaluate the manager. There were three positive correlations between the total score on the SA Scale and its three subscales. The positive correlation between the expectations subscale and total score on the SA Scale showed that those students with the greatest expectation of being hired also showed the most positive overall attitude about being selected for the job, r (164) = .54, $p < .001$. Turning next to the positive correlation between the total score on the SA Scale and motivation, the correlation shows that those participants who reported the most motivation also held the most favourable overall attitudes about being hired for the job, r (1,164) = .48, $p < .001$. The positive correlation between the total score on the SA Scale and its fairness subscale showed that as the

participant's attitudes about the manager's fairness grew more favourable, they also became more positive in their overall outlook about being hired, r (164) = .27, $p < .001$. There was a positive correlation between the motivation and expectations subscales of the SA Scale showing that the more the participants expected to be hired, the stronger their reported motivation, r (164) = .31, $p < .001$.

Table 3.15

Correlations Among Demographic Variables and Psychometric Measures

	1	2	3	4	5	6	7	8	9	10	11
1. Age	-										
2. Gender	-.04	-									
3. Urban/Rural	.01	.07	-								
4. Post-secondary	.12	.12	-.01	-							
5. Prejudice factor	-.02	.03	.05	.04	-						
6. COWAT	-.16	.05	.08	.18*	.02	-					
7. Metis Identity	-.01	-.06	-.01	.14	.03	-.03	-				
8. Stereotyping Whites	.01	-11	-.03	-.04	.37***	.04	.04	-			
9. Selection Attitudes	-.11	.07	.01	-.06	.10	.14	.21*	.31***	-		
10. Expectations	-.10	.08	-.06	-.01	.25***	.10	.11	.37***	.54***	-	
11. Motivation	-.16*	.09	.07	-.05	.14	.16*	.25***	.07	.48***	.31***	-
12. Fairness	-.05	.03	.01	.11	.05	.17*	-.13	.01	.27***	-.12	-.11

** Correlation is significant at .05 level*

**** Correlation is significant at .001 level*

3.4.2 Pre-screening of Data for Multiple Regression

Prior to the multiple regression analysis the variables were examined through the Statistical Package of the Social Sciences (SPSS 22) to test the three assumptions of multivariate analysis: normality, linearity, and homoscedasticity. In addition, the data were examined for both univariate and multivariate outliers.

Normality was checked numerically using the Kolmogorov-Smirnov and Shapiro-Wilk tests, and was found to be satisfactory. Bivariate scatter plots were examined for linearity. An examination of the scatter plots was satisfactory showing linearity between the variables. An examination of the histogram (with normal curve superimposed on the data) as well bivariate scatter plots were examined for homoscedasticity. An examination of the various scatter plots indicated that the standardized residuals for each analysis were evenly scattered above and below the regression line indicating homoscedasticity.

Box plots were examined for univariate outliers. There were no univariate outliers among the various scales. Using Mahalanobis distance with $p < .001$, no cases were identified as multivariate outliers in their own groups.

Stepwise regression was performed because it is considered to be the surest path to the best prediction equation (Tabachnick & Fidell, 1996).

3.4.3 Multiple Regression Analyses

The following multiple regression analyses were exploratory, and will provide additional insight into the reactions of the Metis post-secondary students. It is recommended that a regression analysis only be conducted where there is a significant correlation between a criterion and its independent variables (Tabachnick & Fidell, 1996). Consequently, as seen below, the relationship between the Controlled Oral Word Association Test (COWAT) and three significantly correlated independent variables was examined. Given the importance of achievement motivation (Eccleston & Major, 2010), the relationship between reported motivation and those independent variables which were significantly correlated with reported motivation was also examined. (Although it is suggested that a multiple regression analysis only be performed with variables that are significantly correlated, an additional exploratory analysis was performed regardless of whether there was a significant bivariate relationship. The different strategies did not affect the outcome in a significant manner. See Appendix B for second analysis).

3.4.4 Predicting the Controlled Oral Word Association Test (COWAT) from Fairness, Motivation and Length of Post-Secondary Education

To examine the relationship between the COWAT and fairness, motivation, and post-secondary education, a multiple regression analysis was conducted. As seen in Table 3.16, length of post-secondary education was a significant predictor of the COWAT ($\beta = .18$, $p < .05$). Reported motivation was also a significant predictor of the COWAT ($\beta = .17$, $p < .05$). Fairness was a significant predictor of the COWAT ($\beta = .17$, $p < .05$). The findings showed that task performance can be associated with the length of a student's post-secondary education, reported motivation, and beliefs about fairness. However, altogether, only 10% (7% adjusted) of the variability in the number of words produced on the COWAT was predicted by knowing scores on the independent variables. The ability to predict performance on the COWAT was largely influenced by other factors not included in the model.

Table 3.16

Stepwise Multiple Regression of Fairness, Motivation, Length of Post-secondary Education on the Controlled Oral Word Association Test

Variables	COWAT (DV) r	Fair r	Motivation r	B	β	sr^2
Education	.18*	-		.53	.18*	.18
Motivation	.16*	-.01	-	.40	.17*	.17
Fairness	.16*	.11	-.05	.43	.17*	.17
						$R^2 = .10$
						Adjusted $R^2 = .07$
						$R = .30$

$p < .05$

3.4.5 Predicting Motivation from the Selection Attitudes (SA) Scale and Metis Identity (MI) Scale

Theorists have long emphasized the importance of motivation in task performance. Motivation is the initiation, intensity, or persistence of goal-directed behaviour (Eccleston & Major, 2010). As seen in Table 3.17, both the Selection Attitudes (SA) Scale and the Metis Identity (MI) Scale made a significant contribution to the prediction of motivation. Altogether, 26% (25% adjusted) of the variability in motivation was predicted by the scores on the Selection Attitudes (SA) Scale and the Metis Identity (MI) Scale.

Table 3.17

Stepwise Multiple Regression of Selection Attitudes (SA) Scale and Metis Identity on Motivation

	Motivation (DV) r	B	β	sr^2
SA Scale	.48***	.12**	.45	.44
Metis identity	.25***	.31*	.16	.15
				$R^2 = .26$
				Adjusted $R^2 = .25$
				R = .51

* $p < .05$
*** $p < .001$

3.4.6 Predicting Motivation from Age and Expectations

Theorists have long emphasized the importance of age and expectations of successfully obtaining an outcome on motivation. Expectancy theories of motivation propose that an individual who expects to achieve an outcome will be more motivated to perform a task than someone with lower expectations (Eccleston & Major, 2010). In the present study, there was a significant correlation between the students' expectation of being hired and their reported motivation to do their best on the COWAT, r (164) = .31, $p < .001$. The finding suggested that the more the students expected to be hired, the greater their reported motivation.

Research also routinely reports that task performance can be influenced by age differences (Kanfer & Ackerman, 2004) . As a person ages and moves through different stages of life (e.g., finishing school, leaving home, getting married, raising a family), his or hers personal interests, concerns and goals will change. Thus, changes in personal circumstance, life resources, and personal goals will influence a person's goal-directed behaviour or motivation. In the present study, there was a significantly negative correlation between the age of the students (M = 25.8, SD = 7.0, range 17 years to 51 year of age) and reported motivation, r (161) = -.16, $p < .05$. The finding indicated that, as the students grew older, they reported less motivation.

Given the importance of the relationship between expectations, age and motivation, a control analysis was conducted following the procedure of Eccleston and Major (2010). In the first analysis, age alone was entered into the model. The analysis found that age predicted motivation (β = -.16, $p < .05$). In the second analysis with age removed and expectations entered

alone, expectations predicted motivation ($\beta = .31$, $p < .05$). In the third analysis, when expectations and age were entered simultaneously, including expectations reduced the effects of age to non-significance ($\beta = -.31$, ns). Thus, although the student's age and expectations independently predicted motivation, when age and expectations were simultaneously entered as independent variables, the student's expectations were a much more important predictor of motivation.

Chapter 4. DISCUSSION

The discussion includes six sections. The first section discusses the results from the psychometric investigation involving the Metis Identity (MI) Scale and the Selection Attitudes (SA) Scale. The second section considers the results from the main study. Of particular interest are the findings involving the high and low Metis identifiers, and the observation that, while the students in the prejudice condition were liable to react most negatively, their reactions were often independent of the strength of their Metis identity. The third section discusses some of the assumptions we often make about the Metis and their relationship with other Canadians. It is suggested that the Metis students might not emphasize the Aboriginal side of their identity as strongly as is often assumed, and secondly, the Metis population might not be as different from the general population as is often assumed. The fourth section notes the study's limitations, in particular the artificiality of the study and the extent to which the scenarios read by the students were stressful enough to substantially activate their apprehensions. The final section discusses future directions for researching the Metis university experience. One observation is that there is a dearth of research about the academic experiences of the Metis as a distinct people.

4.1 Psychometric Investigation

A detailed psychometric investigation of the Metis Identity (MI) Scale and the Selection Attitudes (SA) Scale (subscales: expectations, valuing, motivation, fairness) was conducted. The investigation involved both a reliability and factor analysis. Seven of the eight items of the MI Scale were found to be reliable indicators of Metis identity. However, the valuing subscale of the SA Scale was so unreliable, it was removed from the SA Scale in the subsequent analyses. The final versions of the Metis Identity (MI) Scale, Selection Attitudes (SA) Scale, and Stereotyping of Whites (SW) Scale were found to be reliable indicators of their intended constructs. The factor analysis (FA) of the MI Scale provided evidence of the construct validity of the remaining seven items of the Scale. The FA also provided evidence of both the construct and discriminant validity of the SA Scale.

4.2 Experimental Analysis Findings

The present study took an identity (high/low) X situation (prejudiced, unknown attitudes, non-prejudiced) approach to answering the question of whether high and low Metis identifying students would diverge in how they experience and react to the possibility of prejudice. Various scales were used to measure the students' task performance, their expectations of being hired,

their motivation to work to capacity, as well as their judgments about the manager's sense of fairness, and the extent to which the students stereotyped the manager. A series of analyses of variance were performed on the data. The main findings did not support the various hypotheses. As anticipated, there were no significant differences in score between the high and low identifiers in the prejudiced condition on the Controlled Oral Word Association Test (COWAT), the Stereotyping of Whites (SW) Scale, as well as the expectations, motivation, and fairness subscales of the Selection Attitudes (SA) Scale. However, beyond that, there were no significant differences in score between the two groups of students in the unknown attitudes and non-prejudiced conditions that would lend support to the hypotheses.

Although there were no interaction effects between Metis identity (high, low) and the prejudice factor, there were several main effects. Most notably, the high identifiers reported more motivation and overall optimism about being hired than did the low Metis identifiers. There were also several main effects for the prejudice factor. Students in the prejudice condition reported less of an expectation about being hired, and less motivation than did the students in the non-prejudice condition. The students in the prejudice condition also more negatively stereotyped the White manager than did the students in the unknown attitudes and non-prejudice conditions. Thus, the students in the prejudice condition were liable to react most negatively, but their reactions were generally independent of the strength of their Metis identity. Since the students were randomly assigned to each of the three prejudice conditions, the finding lends credence to the assertion that anticipating the possibility of discriminatory treatment can influence a Metis students' motivation, expectations, and the extent to which they negatively stereotype a potential victimizer. However, it must again be noted that the Metis students' reactions were largely independent of whether they were high or low Metis identifiers.

Multiple regression analyses were performed with the COWAT and reported motivation as dependent variables. The analyses found that COWAT scores were predicted from length of post-secondary education, reported motivation, and perceived fairness. Thus, those participants with the most post-secondary education, the highest reported motivation, and the most favourable judgments about the manager's fairness also produced the most words on the COWAT. Of course, the other side of this positive interpretation is the negative one which would be that those participants who reported lower levels of motivation, and who were harshest in their judgments about the manager's fairness also produced fewer words on the COWAT.

Reported motivation was predicted from the total score of the Selection Attitudes (SA) Scale and Metis Identity (high, low). Taken together, the two regression analyses provided additional evidence that the Metis participants were not immune to the possibility of prejudice. Although the students' reactions were generally independent of whether they were high or low Metis identifiers, when the possibility of prejudice was readily anticipated, the participants could show lower achievement motivation and doubts about their potential victimizer's sense of fairness.

Examining potential gender differences is a routine practice in psychology. In the present study, the females outnumbered the males 3:1. Putting aside the high-low identity findings, it is interesting to note that only one gender difference was found: the rural males reported a lower expectation of being hired than did the rural females. Even though the present study did not explore the reasons for the above finding, the observation can provide incentive for future research.

In summary, the findings suggested that, when confronted with overt prejudice, it might not matter whether a Metis student was a high or low identifier. Both groups would be expected to react in more or less the same way in the face of an obvious threat. However, this observation extended to the students' reactions in the two less threatening conditions, where it was anticipated that the low identifying students would out-perform the high identifiers. In fact, whether or not one was a so-called high or low identifying Metis was generally less important than the fact that the students found themselves in a actively threatening situation; that is, the students in the prejudice condition were liable to react more negatively than the students in the other two, less threatening conditions, but whether they were high or low identifiers did not seem to be particularly relevant. In other words, the suggestion that the manager was prejudiced was generally enough to set the student's in the prejudiced condition apart from the students in the other two conditions, regardless of whether they were high or low Metis identifiers.

4.3 Unique Metis Identity and Exaggerating Differences

The present study assumed that the strength of social identity lies on a continuum. Research suggests that there is generally substantial variability in how people view their identity and its consequences (Tajfel & Turner, 1986). Social Identity Theory states that social identity is that portion of an individual's self-concept or self-image derived from perceived membership in a relevant social group (Turner & Oakes, 1986). But this portion can vary from person to person. For some individuals, one's social identity will be highly defining, for others less so. To the

extent that one's social identity is highly defining, and to the extent the individual is aware of his or her stigmatized status, such individuals may be particularly alert to the possibility of prejudice (Brown & Pinel, 2003). Members of a stigmatized group who strongly identify with their group are particularly apt to perceive prejudice cues across different times and situations when compared to their weakly identifying counterparts (Schmitt & Branscombe, 2002). The basic proposal is simple and obvious: high identifiers from stigmatized minority groups, compared to low identifiers, are often more sensitive to the possibility of prejudice, and more likely to hunker down when they believe they are being threatened (Falomir-Pichastor, Gabarrot & Mugny, 2009). This heightened sensitivity can give rise to an assortment of cognitive and emotional deficits, all of which can culminate in reduced task performance (Eccleston & Major, 2010).

Two findings which stood out involved the total score on the Selection Attitudes (SA) Scale as well as reported motivation. The high identifiers reported a more positive overall outlook on the SA Scale than did the low identifiers. The high identifiers also reported the most motivation. As a rule of thumb, depending upon the nature and strength of a threat, a high identifier (from a stigmatized group) who anticipates a threat, often experiences a stronger and more neutralizing cluster of negative thoughts and feelings than a low identifier, who is likely less sensitive to insult. However, some high identifiers will defy expectations and will hunker down in reaction to a threat in the only way they can: they will steel their spine, and rebel against the threat. In a survey situation where the only available option is to rebel on paper, the high identifier might over-report positive "strengthening" attitudes to both themselves and a perceived victimizer. Doing so might accomplish two goals: (1) the high identifier is over-reporting positive attitudes back to him- herself, which allows the individual to maintain a positive self-image (Major et al., 2001), and (2) the individual might over-report positive attitudes to a potential victimizer expecting to curry favour with the victimizer (Furnham, 1986). This helps explain why the high identifiers in the present study reported more overall optimism on the SA Scale, and more motivation than the low identifiers.

In general, empirical research suggests that high identifiers from stigmatized minority groups, when compared to low identifiers, often more readily expect, and intensely react to a perceived threat to their social identity (Mendoza-Denton et al., 2002). Of course, as stressed throughout the present paper, all the negative thoughts and feelings that can occur when

members of a stigmatized group feels threatened by the possibility of prejudice can gel to ultimately darken their attitudes about a potential victimizer (whether or not the charge can be substantiated), and inhibit their task performance.

Extending this logic to the present findings, those Metis students who strongly identify with their social identity, and who know about the negative attitudes that many Canadians harbour against Aboriginal people, may be particularly on guard and apprehensive in response to a possible threat from a non-Aboriginal victimizer. In contrast, since low Metis-identifiers have less of an identity stake in their group, they may be less likely to anticipate prejudice and may be less defensive in response to situational cues suggesting possible threat. To put this observation in yet other terms, those people who experience more chronic activation of their group identity are often more likely to interpret unknown or ambiguous events through the lens of their group membership relative to those people who do not experience chronic activation of their social identity (Shelton & Sellers, 2003). Thus, it was hypothesized that the high identifying Metis students would react more negatively to the White employment manager regardless of the manager's reported attitudes about Aboriginal people. Research suggests that members of stigmatized groups, especially high identifying members, can become chronically suspicious about dominant group members, even in situations where they have no clear reason to be apprehensive (Corenblum & Stephan, 2001).

Studying how members of a group who often experience prejudice might react in a situation where prejudice is likely seems to be the easy case. For members of stigmatized groups, the settled storyline is simple: when they are called upon to perform a task for a dominant group member, stigmatized individuals often fail to perform to the best of their ability. The mere perceived possibility of prejudice can create a chilly climate inside a situation that can foster a host of negative reactions: psychological disengagement from the situation, hostility towards the alleged victimizer, evaluation apprehension, distraction, and so on. A lay-person might put the matter in these terms: perceiving the possibility of prejudice stresses a potential victim to the point where the individual struggles with putting his or her best foot forward.

The present study involved a number of assumptions. It was assumed that Metis identity lies on a continuum from which a researcher could roughly establish groups of high and low Metis identifiers. It was expected that the students would react to the description of the White employment manager. If this person was described as prejudiced and the threat was obvious, it

was assumed that both the high and low identifiers would hunker down in reaction to the threat. At this point, whether one was a high or low identifying Metis would take a back seat to an obvious threat. And when the manager's attitudes about Aboriginal people were described as positive or where this person's attitudes were unknown, it was nevertheless assumed that the high identifiers would still be suspicious enough to react negatively to the non-Aboriginal manager. On the other hand, it was assumed that the low identifiers would not react as negatively when the attitudes of the manager were described positively or when the manager's attitudes about Aboriginal people were unknown.

Another assumption was that the Metis are a stigmatized group within Canada, and especially in the Prairie provinces. We often read about the strained historical, political, and legal Relationship between the Metis and the Canadian and provincial governments. We often read in the newspapers about the continuing efforts by the Metis to assert their legal rights. We also see that the Metis have even established their own post-secondary educational institutions that help blunt some of the impacts of colonization (e.g., loss of livelihood, alienation from mainstream education system, discrimination), giving them greater opportunity to honour their history and improve their lives. We also know that racism exists in Canadian society and on campuses. And, of course, we are routinely told that Aboriginal people are not enjoying as big a piece of the Canadian pie as do other Canadians, and that the treatment meted out by other Canadians is largely to blame for the challenges faced by Aboriginal people. However, these discussions sometimes feel like standardized truisms and somewhat removed from everyday life. When we take a grassroots point of view, and look into the lives of ordinary Metis people, we might wonder if things are as bad for the Metis as we sometimes assume.

Earlier, in the literature review, a number of studies were discussed which report the assorted negative attitudes that many Canadians harbour against Aboriginal people. The first issue to note is that the Metis people are usually lumped into the generic basket of "Aboriginal people" and usually little, if any, effort is made to distinguish between the unique experiences of the Metis, First Nations, and Inuit peoples. But the Metis are considered to be a distinct people, (see Library and Archives Canada, 2015) even though they are grouped within the term "Aboriginal." To use the word "Aboriginal" is akin to using the word "European." But in the same way that a German regards him or herself as distinct from a Dane who, in turn, regards him or herself as distinct from a Swede, so a Metis person likely regards him or herself as distinct

from a First Nations person and certainly distinct from an Inuit. Although studies routinely canvass the attitudes of Canadians about Aboriginal people, nobody ever seems to ask Canadians for their attitudes about Metis people. Of course, Aboriginal people per se routinely report being the victim of prejudice. Attitudes are known to be particularly harsh in Western Canada (CBC News, 2014). But when was the last time we read a study about Canadians' attitudes toward the Metis people, as separate from First Nations? It is difficult to know precisely what attitudes the typical Canadian has about the Metis, when nobody ever canvasses them for their opinions about the Metis. It seems to be an open question about whether or not the Metis experience as much discrimination as First Nations people report and, whether or not they labour under the same cluster of negative effects associated with prejudice. Although we label the Metis as an Aboriginal people, it must also be remembered that they actually have a dual identity. The historical fact is that the Metis were somewhat able to adapt to the perspectives of both First Nations people and the Europeans. Even though certain education and earning gaps emerged between the Metis and other Canadians, it can also be asserted that the Metis have attained a high degree of intercultural sensitivity. If so, is it possible that the lifetime experiences of many contemporary and younger Metis with other Canadians might not be aversive and pervasive enough to automatically prime their suspicions about so-called mainstream Canadians? For the Metis students in the present study, perhaps prejudice is a stray cloud in an otherwise clear sky. It is not something they expect to encounter on a systematic basis.

Non-Aboriginal researchers studying the effects of prejudice on Aboriginal people can be easily forgiven for assuming that the Metis, since they are an Aboriginal people living in an admittedly biased society, are disenchanted with Canadian society. While numerous reports laments the treatment and circumstances of Canada's Aboriginal people (Canadian Human Rights Commission, 2009), it has nevertheless been observed that many Aboriginal people report being more-or-less happy with their lot in life and do not feel cornered into having to claim that discrimination has unduly shaped their life negatively. The *Urban Aboriginal Peoples Survey (UAPS) 2010* found that 94% of Aboriginal respondents reported that they were either happy or somewhat happy in their lives. While the Survey reported that 36% of Aboriginal respondents did not feel accepted by other Canadians, this means, of course, that 64% reported feeling more-or-less accepted by other Canadians. Similarly, the Survey reported that 18% of Aboriginal respondents believed that their experiences as Aboriginal people had shaped their lives

negatively. Again, this means that 82% of the respondents did not feel particularly put-upon because of their social identity. McCaskill (2012) wonders if these relatively happy individuals are those Aboriginal individuals who have successfully managed to integrate into urban life and for whom discrimination may not be a significant issue in their lives, one that invariably darkens their relationship with other Canadians. At any rate, hopefully, prejudice and discrimination are not an unrelenting feature of the lives of Aboriginal peoples.

Two issues are raised. First, as stressed earlier, reports about the attitudes of Canadians towards Aboriginal people seldom distinguish between First Nations and the Metis. It seems to be routinely assumed that statements about Aboriginal people per se generalize to the Metis. Second, even while the Metis regard themselves as a distinct people, we can wonder how different the average Metis person feels from (so-called) mainstream Canadians. Of course, some Metis regard themselves as very distinct, and readily highlight the Metis side of their identity. This group might be called "high identifiers" because they are strongly committed to their social identity, how it affects others, as well as how it distinguishes them from other Canadians. On the other hand, other Metis individuals might not be particularly committed to the Metis side of his or hers social identity, and shrug off the alleged distinctions with other Canadians. It might not be a protective strategy to weakly identify with one's "Metis-ness" simply to blend in with other Canadians. The individual might honestly believe that the boundaries drawn between him or herself and other Canadians involves a distinction without much of a difference.

Of course, there are some economic and educational differences between the Metis and other Canadians, but sometimes public perceptions seem to over-state these differences. As seen in Table 4.1, Howe (2011) reported that, in Saskatchewan in 2011, the lifetime earnings of non-Aboriginal residents who have a "high school diploma only" is $790,956. For their Metis peers, lifetime earnings are reported to be about the same ($792, 417). The same can be said about non-university post-secondary graduates. According to Howe (2011), the lifetime earnings of non-Aboriginals who have a "technical school education only" was $983,308. For their Metis peers, lifetime earnings was $1,016,050. Although it can be said that, at the "no high school" level, the Metis tend to earn less than their non-Aboriginal peers, past this point the gap closes. At a higher level of education – bachelor's degree or high – the gap between the Metis and others evaporates. At this point, the lifetime earnings of non-Aboriginals in Saskatchewan was reported by Howe (2011) to be $1,515,504 (males and females combined). For Metis residents, this

number was $1,591,252.

Examining the education differences between non-Aboriginal Saskatchewan residents and the Metis reveals some interesting insights. As reported in Table 4.2, about 29% of non-Aboriginal Saskatchewan residents have a high school diploma only. Among the Metis, this number is about 25 percent. Much the same can be said about those Saskatchewan residents with a technical school diploma: approximately 33% for non-Aboriginals versus 28% for the Metis. At the university level, the gap widens: in Saskatchewan, in 2010, about 15% of non-Aboriginal residents had a bachelor's degree or higher. Among the Metis, the percentage is reported at about 6%. As can be seen in the tables, the largest gaps are between First Nations and non-Aboriginals.

Table 4.1

Lifetime Earnings by Educational Attainment for First Nations, Metis, and Non-Aboriginals Across Gender for Saskatchewan in 2010

Education	First Nations	Metis	Non-Aboriginal
No high school diploma	$282,151	$403,387	$521,231
High school diploma only	$638,275	$792,417	$790,956
Technical school diploma	$878,600	$1,016,050	$983,308
Bachelor's degree or higher	$1,426,307	$1,591,252	$1,515,504

Source: Howe 2011

Table 4.2

Educational Attainment by First Nations, Metis, and Non-Aboriginals Across Gender for Saskatchewan in 2010

Education	First Nations	Metis	Non-Aboriginal
No high school diploma	56%	41%	23%
High school diploma only	20%	25%	29%
Technical school diploma	20%	28%	33%
Bachelor's degree or higher	4%	6%	15%

Source: Howe 2011

While the earning gaps narrow as one rises up the education ladder, especially for those Metis who have graduated university, the problem is that relatively few Metis have a university degree. As seen in Table 4.2, 66% of Metis either have no high school diploma or a high school diploma only. The corresponding percentage for non-Aboriginal residents is 52%. This gap works its way to the university level where only 6% of Metis have a bachelor's degree or higher,

compared to 15% of non-Aboriginal Saskatchewan residents. On this note, another gap which stands out is the university retention rates between Metis students and others. According to census data obtained from the University of Saskatchewan, in 2011/20122, the second year retention rate among self-declared Metis students was about 68%. The comparable retention rates for First Nations and non-Aboriginal students was 53.3% and 79.9% respectively (University of Saskatchewan Data Warehouse, 2013).

Although those differences which do exist usually get the most attention, Howe (2011) estimated that, in Saskatchewan, the number of additional educational credentials across all levels of education required for the Metis to bridge the education gap with non-Aboriginal Saskatchewan residents is 5,017 (the comparable number for First Nations people is 16,878). Statistics Canada (2013b) reported that, in 2011, there were about 57,200 self-declared Metis in Saskatchewan. Consequently, if an additional 8.8% of Metis residents can be convinced to stay in school, the education gap between the Metis and non-Aboriginal residents would be bridged.

Other reports also draw an optimistic outlook for the Metis. In 2015, the National Aboriginal Economic Development Board released *The Aboriginal Economic Progress Report*. In 2010, the Metis population earned an average of $35,000, compared to $41,000 for the non-Aboriginal population. The income gap between the two populations was reduced by 6.7 percentage points from 2005 to 2010. In 2011, the unemployment rate for the Metis population (15 years and older) was 10.4% compared to 7.5% for the non-Aboriginal population. The Metis managed to reduce the unemployment gap by 0.8 percentage points from 2006 to 2011. In 2006, the unemployment gap between the Metis and non-Aboriginal Canadians was 3.7 percentage points; in 2011, it was 2.9 percentage points.

According to the Report, in 2011, 71% of the Metis population had graduated high school compared to 80.6% for the non-Aboriginal population, a difference of 9.6 percentage points. In 2011, 32.4% of the Metis population had a non-university diploma compared to 29.1% for the non-Aboriginal population. However, there was the traditional university completion gap between the Metis and non-Aboriginal populations. In 2011, the Metis had a university completion rate of 12.2% compared to 25.8% for non-Aboriginal Canadians. The report observed that the Metis made the largest progress among Aboriginal groups in closing the income and education gaps between 2005 and 2011.

Theories of prejudice assume a distinction between different social groups, with some

groups, for whatever reasons, rising to become dominant over other groups who may find themselves labelled "subordinate," and whose members become the victim of assorted injuries and damage. And there are many types of prejudice and discrimination: age, economic class, disability, gender, language, employment, nationality as well as ethnicity and race. Many distinctions we make often involve observable differences. We can often see with our eyes that someone is different from ourselves. We can readily discern if someone is male or female or is a person of colour. We can easily hear someone's accent or judge their age. But some distinctions are not as easily discernable. Unless a person is dressed very poorly, we often cannot readily discern that they are poor. When we meet someone we often do not see the home they live in or the car they drive. And we certainly do not see his or her bank statements. As a result, in our everyday lives it is generally difficult to disrespect someone for some perceived shortcoming when most of his or her qualities are entirely invisible at first pass.

We are brought back to the point that perhaps the typical Metis person is not so different from so-called mainstream Canadians. Many Metis do not look particularly Aboriginal and do not stand apart from the crowd. We have learned that many are not particularly poor, at least not so poor that they can be easily seen as belonging to a different economic class. Similarly, more and more Metis are managing to merge into the educational, political, and economic mainstream. Consequently, perhaps many Metis, especially younger Metis, perceive themselves as being more similar to than different from other Canadians. This might help explain why the Metis students in the present study did not seem to harbour animosity for the so-called White manager.

It is helpful to remember that most of the studies used in the present literature review involving racial discrimination are American studies involving Blacks and Latinos, two groups who have traditionally carried a heavy burden in American society. It has become easy to generalize the American experience with prejudice to the Canadian and to assume that the Metis, as an Aboriginal people, are also the chronic victims of prejudice. But, perhaps the reason why more Metis students in the present study did not strongly differentiate themselves into high and low identifying Metis, and perhaps the reason why they generally did not react strongly against the manager is because (a) they do not dwell on their Metis identity, and (b) their past experiences have not primed them to look for prejudice and discrimination behind every tree. Many of the Metis students might not have regarded themselves as being particularly different from the non-Aboriginal manager, and might not have felt threatened or, even annoyed, by the

scenario placed before them. We use labels to distinguish between categories – non-Aboriginal, First Nations, Blacks, Whites, Metis – but sometimes labels create distinctions without much of a difference. At the same time, using words like "Whites" and "Blacks" or "Whites" and "Metis" seems provocative, helping to foster an apparent polarization, which may or not be helpful. Although the Corenblum and Stephan (2001) study focuses on the attitudes of Native Canadians, the study does contain a small number of Metis, who are lumped into the basket of "people of aboriginal ancestry" (p. 252). Having settled the debate about how to refer to "people of aboriginal ancestry" the natural next step is often to separate the "Us" and "Them" groups into "in-groups" versus "out-groups." But, would the Metis students who participated in the present study think in these terms? Would the Metis students, in their everyday lives, think of other Canadians as "Whites"? Although the employment manager was described as "White," perhaps using such words to describe a member of an assumed out-group might be passé to many Metis. This way of talking about their friends, neighbours, employers, and teachers (many of those who teach the Metis students in the present study are "White") might be too old-school for the students.

These statements fly in the face of the settled wisdom about how Aboriginal people can be expected to react to a threat of prejudice posed by so-called Whites, an ethnic majority who are often assumed to hold negative attitudes about Aboriginal people. The literature also reports over and over again, that negative stereotyping is a two-way street. Aboriginal people can stereotype too, especially against a majority population who are often accused of harbouring them ill-will. Corenblum and Stephan (2001) reported that ethnic minorities *invariably* harbour their own assorted negative stereotypes about Whites, who are often regarded as unfriendly, hostile, unfair, and generally untrustworthy. But the Metis in the present study did not particularly negatively stereotype the White manager. It was only when the White manager's negative attitudes were blatantly obvious did the students negatively stereotype the manager. But, we cannot say that the Metis students *invariably* harboured their own assorted negative stereotypes about Whites. They were not prone to do so in the unknown attitudes or the non-prejudiced conditions. In these latter two conditions, the students did not seem predisposed to negatively stereotype the so-called White manager.

The unknown attitudes condition is particularly interesting. It is settled that high identifying stigmatized group members are particularly attentive to prejudice cues (Eccleston &

Major, 2010). In fact, they can be so sensitive to the possibility of prejudice that they often interpret ambiguous situations as being threatening (Kaiser, Vick, & Major, 2006). Ambiguous situations contain an element of uncertainty, which is open to interpretation. One might expect a high identifying Metis who more readily perceives bias to more readily interpret an ambiguous situation as threatening compared to a low identifying Metis who is not as primed to immediately anticipate the possibility of bias. However, in the present study there were no significant differences between the high and low identifying Metis students in the unknown attitudes condition. It was hypothesized that the high Metis identifiers would perceive and react negatively to the non-Aboriginal manager even in a situation where there were no situational cues to signal the manager's attitudes about Aboriginal people. But the hypothesis was not supported by the data. This opens up the possibility that the Metis students, regardless of whether they were labelled as high or low identifiers, were not particularly primed to anticipate the possibility of discrimination. Again, the suggestion is that perhaps the Metis students did not react particularly harshly to the so-called White manager in the unknown condition because they do not harbour deep resentments against non-Aboriginal people in general, and did not immediately anticipate the possibility of racial bias.

Given the wealth of research involving prejudice and discrimination we might have expected the Metis students, as members of an assumed stigmatized group, to react badly to the possibility of unjust treatment by a White person. But the data does not strongly support this suggestion. Prior research would suggest that the high identifiers compared with the low identifiers would likely react negatively to the White manager regardless of what was said about the manager's attitudes. Of course, this presumes that the Metis students have had their fair share of negative experiences with other Canadians. This also presumes that high identifiers would also be particularly alert to the possibility of prejudice, and react accordingly. The observed fact was that the so-called high and low Metis identifiers did not particularly distinguish themselves in terms of how they reacted to the possibility of prejudice. Perhaps the reason why the two groups did not react particularly harshly to the varying degree of threat placed before them was because the students do not generally dwell on their Metis identity or how it sets them apart from other Canadians, who might be regarded as more similar than different.

4.4 Limitations of the Current Study

The sample of Metis students was a sample of convenience. The researcher's primary interest involved Metis university students. While many of the students in the present sample were enrolled in a university level program, many were not. Some were enrolled in a technical trade program. Others were enrolled in an adult basic education program covering grades 10 through 12. Consequently, one cannot generalize the findings from the present study directly to all young Metis adults. Hopefully, insights gleaned from the present sample of students can help understand the Metis the post-secondary school experience, including university. On the other hand, one cannot yet apply these findings to the many young adult Metis who do not pursue a post-secondary school education or do not finish high school.

In addition, systematic biases can result from a sample of convenience. For example, the 165 students in the present study attend a post-secondary institution that was developed exclusively for Metis students. It is reasonable to suggest that these students would feel protected and safe within this environment, and would not be overly concerned about prejudice; it is not something they might be guarded about. Thus, the perspective of these students about prejudice, and their reactions to its possibility, might be somewhat different from those Metis students who attend a typical post-secondary institution. It can also be noted that, in addition to their other course offerings, the schools are devoted to teaching the Metis students more about their history, culture, past conflicts with the settler culture and its governments, as well as contemporary economic and legal challenges. Given the emphasis placed on their culture and identity, the students might highlight their Metis identity even more than the typical "grassroots" Metis. Systematic biasing might occur among the current sample of students because they are actively encouraged to be high Metis identifiers.

The valuing subscale was found to be unreliable and removed from further consideration. This result was not expected because the three items were basically the same three items used by Eccleston and Major (2010), who reported that the items formed a reliable measure (α = .88). The value judgment that the subscale tried to measure involved a judgment about the importance or desirability of obtaining a job working alongside a White manager (who may or who may not have harboured negative attitudes towards Aboriginal people). Measuring the extent to which an individual values an outcome and is willing to expend the effort needed to achieve a goal can be a complicated affair involving several possible dimensions: the importance of an outcome to the

individual (Husman, Derryberry, Crowson, & Lomax, 2004); the individual's assessment of the probability of successfully obtaining an outcome (Raynor, 1981); the individual's present and future goals (Raynor, 1981); how much interest the individual has in performing the tasks needed to achieve an outcome (Eccles & Wigfield, 1983); as well as the individual's judgments about the costs associated with obtaining an outcome (Eccles & Wigfield, 1983). Obviously, measuring a construct as subjective and multi-dimensional as one's desire to obtain a goal is a complicated affair, and one has to wonder if using three items to measure the construct does it justice. While using the same three items seemed to have worked for Eccleston and Major (2010), the items were ineffective in the present study. Clearly, understanding how people evaluate the desirability of an outcome merits further consideration. At any rate, unfortunately, removing the valuing subscale eliminated the possibility of gaining insight into an important dimension of achievement motivation in Metis students.

The situation within which the Metis students found themselves was very artificial. After all, they were only applying for a pretend job, and only read a brief story about the attitudes of a White person of authority. The question is: was the scenario the Metis students found themselves reading threatening enough to activate their feelings of apprehension?

In their study of the detrimental effects of sexism, Adams, Garcia, Purdie-Vaughns, and Steele (2006) suggested that, even the *mere suggestion* of sexism – apart from the issue of actual discrimination – can be sufficient to harm potential targets of sexism. Across three experiments, women who were simply told by a confederate that a male instructor was sexist reported a less positive experience, performed worse on a logic test, and rated the instructor as less competent than did women who were not exposed to the sexist suggestion. Note however, in this situation, the participants eventually came into face-to-face contact with the sexist (allegedly) instructor. They actually had someone in front of them upon whom they could hang their suspicions. In the present situation involving the Metis students, the so-called White manager was not a real person. The manager was simply a character in a story. The situation presented to the students might not have been real enough to strongly trigger their identity concerns, at least to the tipping point needed to activate any real sense of threat and anxiety, those feelings which research has shown can cause vigilance and distraction which, in turn, can ultimately disrupt task performance. While some research suggests that even when prejudice cues are subliminal and little more than a spectre, and this can be enough to produce a diffuse arousal that can inhibit

task performance (see Medoza-Denton, Shaw-Taylor, Chen & Chang, 2009; Wang, Stroebe, & Dovidio, 2012), other studies suggest that the threat posed by the social context may not work above the minimum level needed to activate one's identity concerns and apprehensions (Falomir-Pichastor, Gabarrot, & Mugny, 2009). In the present study, the students were merely presented with a story involving a White person of authority. It is not as if they were in a real-life situation (or a laboratory situation that accurately mirrored a real-life situation) sitting across from someone whom they strongly suspected harboured ill-will against them.

This is one possibility why there were so few significant differences between the high and low Metis identifiers within each of the prejudice conditions: the situation within which the students found themselves may have been too artificial and innocuous to effectively activate their supposed differing apprehensions and identity concerns. However, it is important not to over-interpret this point. Having raised the issue, it is worth recalling that there were certain main effects for Metis identity (i.e., the high identifiers reported more motivation and overall optimism about the prospect of being hired) which suggested that the strength of one's social identity can, on occasion, be relevant to a student's reactions to perceived prejudice. Similarly, several main effects on the prejudice factor showed that the students could be influenced by the possibility of prejudice quite apart from the strength of their Metis identity.

An attempt was made to group the Metis students into high and low identifiers using the Metis Identity (MI) Scale. A median split ($Md = 4.0$) was computed to distinguish between the two groups. The mean for the low identifying students was 3.3; for the high identifying students, the mean was 4.5. Since the Metis Identity Scale would assume an equal distance between each response option (Strongly disagree to Undecided through to Strongly agree), a mean of 3.3 would place the so-called low identifiers solidly within the middle or intermediate category. For the so-called high identifiers, a mean of 4.5 would place them solidly within the "somewhat" category. Thus, the MI Scale did not distinguish between low and high identifiers as much as it distinguished between those students who had a fair-to-midling commitment to their social identity and those whose Metis identity was somewhat important to them. To the extent that the so-called high and low Metis identifiers were not as different from each other as the labels "high" and "low" imply, we might not expect their reactions to the different employment scenarios to be particularly polarized. In other words, perhaps the reason why the analyses found so few high/low differences within each of the three prejudice conditions was largely because the

so-called high and low identifiers were not really that different from each other; that is, despite the labels put on them, they pretty much think alike.

The above discussion also raises the issue of the validity of the Metis Identity (MI) Scale. The question becomes: did the MI Scale actually measure Metis identity? The items used by the scale were items drawn from previous research, much of which is American, which focus heavily on Blacks and Latinos. The items used in the MI Scale were not developed exclusively for Metis post-secondary students. The issue is that the nature of Metis identity might not mirror the nature of Black identity or Latino identity, in which case, a Metis Identity scale based on items drawn from identity scales of other ethnic minorities may be of questionable validity.

The traditional definition of race and ethnicity is related to biological and sociological factors respectively. While race refers to a person's physical characteristics such as skin colour, ethnicity refers to cultural factors including nationality, regional culture and ancestry (Live Science, 2012). Much of the American research on prejudice emphasizes race and the ongoing tensions between Black and White Americans. Discussions about ethnicity are secondary to the main line of thought centering on race (Blacks). Very little research focuses on American Natives and absolutely none on the Metis experience. This is one reason why the present study is unique: it focuses exclusively on the Metis experience with prejudice, not the experiences of First Nations, Latinos, or Black Americans.

In hindsight, the Metis Identity Scale attempted to back the students into a corner forcing them to highlight their Metis identity at the expense of their non-Metis identity. To elaborate on this point, consider the following. Many Canadians trace their ancestry to other countries, often European countries. But would a third generation Canadian who happens to have a German ancestry think of him or herself as a German-Canadian? Likely not. More likely, the person would think of him or herself as a Canadian who happens to have a German ancestry. Perhaps many Metis people think the same way: many might not think of themselves as Metis-Canadians as much as they think of themselves as Canadians who happen to have a Metis ancestry. Although it was assumed that the Metis students would set themselves apart from so-called mainstream Canadians, perhaps the students did not feel obligated to set themselves too far apart from other Canadians. Perhaps the Metis Identity Scale forced the students to place themselves firmly into a set-apart identity, when they themselves might not emphasize their "Metis-ness." As with many Canadians, perhaps the students think of themselves as Canadians who happen to

have a Metis heritage. As observed earlier, many, if not most Metis people, do not live their lives toiling in the background of mainstream society. Many might not feel particularly disadvantaged and do not separate themselves sharply from most Canadians. And, those whose social identity is not highly self-defining and not seen as particularly stigmatized report that they do not typically think about their identity and alleged stigmatized status when interacting with others, and that they are not overly concerned about unfair treatment (Brown & Pinel, 2003). Perhaps the students resisted the Metis Identity Scale's attempt to force them into a box, one which emphasized only one part of their identity, a part which might not be as important to them as many of us assume. It would be helpful for future studies – both quantitative and qualitative – to examine the extent to which the Metis themselves highlight the Metis side of their identity and set themselves conceptually apart from other Canadians. Another way of putting the matter is to ask the extent to which a Metis person might emphasize the Metis or non-Metis side of his or her social identity. At any rate, future research should focus heavily on the nature of Metis identity and how it can be properly measured.

It should also be remembered that the present study took a limited approach to the study of Metis social identity. Social identity is seen as one's sense of belonging to a particular social group based upon sharing the same characteristics as other members of that group. It was observed that the individual forms a social identity largely through one's identification with significant others such as family, friends, and a host of others. In the present study Metis identity was largely defined by one's commitment to one's ancestry, that is, the importance of the Metis identity to the individual. Specifically, an attempt was made to measure Metis identity at the level of individual cognition. Thus, social identity might be seen as a kind of self-knowledge or self-awareness. In this sense Metis identity is part of the known-self, made of everything we know (or think we know) about ourselves. This involves not only our physical characteristics (i.e., skin colour), but also our beliefs about ourselves as a people distinct from others, as well as our beliefs about the nature and consequences of one's Metis identity (e.g., spawned at a particular period of time by the relationship between Native Canadians and Europeans, past legacy of discrimination and neglect, contemporary experiences with prejudice and discrimination). At any rate, in the present study "Metis identity" was regarded as a type of self-knowledge, which could be more-or-less retrieved by the individual and expressed on a rating scale. But it should be kept in mind that social identity is an extremely complicated concept that

easily connects to the most cryptic aspects of cognition and cognitive science, and is of interest to the psychologist, anthropologist, sociologist, and philosopher alike.

The Controlled Oral Word Association Test (COWAT) was used as a direct measure of performance and an indirect measure of motivation. It was expected that the high identifiers would be more distracted than the low identifiers and, therefore, would produce fewer words on the COWAT within each of the three prejudice conditions. The students also provided a self-report of their motivation. A major issue with self-reports is that they may be limited to people's conscious understanding of their own psychological states and further be biased by social desirability concerns. Hence, many social psychologists feel more comfortable using other paradigms to assess motivation without relying on self-reports (Toure-Tillery & Fishbach, 2014). Proponents of behavioural measures of motivation argue that actual behavior requires some form of mental, physical, or psychological effort. Measures involving choice, speed, performance, or persistence can assess the strength of one's motivation to pursue a goal. The COWAT was used as a behavioural measure. It was assumed that the high identifiers would be less motivated than the low identifiers to work to capacity. Hence, the student's self-reports of motivation were paired with a behavioural measure of motivation. Of course, alternative approaches differ in how motivation is conceptualized and measured. There are a variety of cognitive, affective, and behavioural measures of motivation, and future researchers should explore the use of measures other than the COWAT to assess the cognitive, affective, and behavioural dimensions of motivation.

It was assumed that the mere hint or spectre of prejudice could be sufficient to influence the high identifying students. We return to the question: can the mere hint or suggestion of prejudice – apart from the issue of actual discrimination – be sufficient enough to cause harm to potential targets of discrimination? The research findings on this question are mixed. Earlier it was observed that Adams et al. (2006) argued that even the *mere* suggestion of prejudice can create a chilly climate within a situation that can foster a host of negative reactions that culminate in reduced task performance. It is not necessary to be in a real-life situation sitting across from someone who might be biased against you. Even the mere suggestion in a testing room that someone may harbour biased attitudes against you can be a sufficient suggestion-of-bias manipulation. Pratto and John (1991) argued that the proposed target of prejudice does not

even need to believe the suggestion of bias for distraction to occur. Instead, the mere suggestion may trigger an automatic vigilance that has a distracting effect.

On the other hand, other research suggests that the threat posed within a situation needs to work above a required minimum to activate the individual's sense of threat (Falomir-Pichastor et al., 2009). At the least, the individual has to be sufficiently invested in his or her task performance. To the extent that a goal is not particularly relevant or rewarding, an individual's motivation to achieve the goal might be relatively weak (Toure-Tillery & Fishbach, 2014). Of course, motivational strength can vary. When a goal is desired and looms large, motivation can be expected to increase. One thing is clear: for people to be motivated to perform at their best, they must be invested in the implications of their performance. If the individual does not value the carrot that he or she sees dangling, the person can be expected to discount an outcome and the effort needed to achieve it (Eccleston & Major, 2010). Given everything that has been said about motivation and goal-directed behaviour, in the present study, one cannot help but wonder how seriously the students took the assignment. After all, they were only applying for a *pretend* job and only *pretending* that the pr*etend* White manager might have had a negative bias. The carrot dangled before them and the potential threat posed by the situation might not have been salient enough to produce the type of stress or diffuse anxiety needed to dampen task performance. This helps explain why the high and low Metis identifiers did not diverge in their performance on the COWAT within each of the three prejudice conditions.

All things being equal, using the COWAT as a behavioural measure of performance seems reasonable. The COWAT takes psychological effort. The students were under extra pressure because their reactions had a time-restraint (i.e., they had 1 minute to respond to each option). Collectively, research suggests that expecting prejudice in a situation may depress expectations of success and motivation (Eccleston & Major, 2010), and may foster a negative evaluation of the person(s) seen as being prejudiced, ultimately culminating in reduced task performance (Adams et al., 2006). Perhaps the biggest failing of the present study was its artificiality. The students were only pretending to be applying for a job with a character in a story. One might expect a different reaction from the students in a closer-to-real-life situation, where they are actually sitting across from someone whom they suspect harbours them ill-will. To the extent that the students did not find their situation to be particularly threatening and stress-inducing, then we would expect that the students, regardless of their high or low

identifying label, would not to be overly concerned about how they performed on the COWAT.

The Stereotyping of Whites (SW) Scale also raises certain issues. The first observation to make is that stereotyping is a two-way street. Corenblum and Stephan (2001) reported that Native Canadians invariably harbour their own negative stereotypes of Whites, who may be regarded as unfriendly, hostile, unfair, and generally untrustworthy. In the present study, twelve traits were used to examine the extent to which the students might stereotype the White manager. The twelve traits were: calm, uneducated, clean, boastful, lazy, loud, passive, sophisticated, reliable, spiritual, considerate, and aggressive. These various traits were used by Corenblum and Stephan (2001) to examine differences in stereotyping between Whites and First Nations people. The most obvious observation to make is that the Corenblum and Stephan (2001) study focused on First Nations people and not Metis. Can we assume that, even if many Metis will readily stereotype "Whites," the traits used in the present study accurately capture the way in which the Metis might characterize "Whites"? The findings of the present study did show that the students in the prejudiced condition reported a stronger negative stereotype of Whites than the participants in both the unknown attitudes and non-prejudiced conditions, whose evaluations were moderately favourable. Thus, unless the possibility of prejudice loomed large and the students were provoked, they did not seem to be particularly predisposed to negatively stereotype White people. But the central point and limitation of the twelve traits used to capture stereotyping is that the traits were originally used to capture the attitudes of First Nations people, not Metis. And it is difficult to know how a Metis might stereotype Whites when there is a dearth of studies about the attitudes of the Metis towards so-called Whites.

Another concern relates to the sample size of the current study and how this might have affected the results and corresponding interpretation. For example, when comparing sample means, the researcher has to be alert to the possibility of two types of errors: (1) Type I, where the researcher finds a difference that is not actually present, and (2) Type II error, where the researcher fails to find a difference that is actually present. The present study was primarily concerned about whether the high and low Metis identifiers would diverge in how they experienced and reacted to the possibility of prejudice. Various 2 X 3 analyses of variance (ANOVA) were performed to examine the extent to which the two groups differed in performance on the various scales used in the present study. Of course, if there is a significant difference between sample means, then the researcher wants to be able to detect the difference.

To not detect a difference that actually exists is to commit a Type II error. As seen in Appendix D, the ANOVA failed to detect a significant difference in sample means in 11 of 18 analyses. The power value for these non-significant findings ranged from a high of power = .96 to a low of power = .05 when alpha was set at .05, and from .63 to .10 when alpha was set at .10. A power value of .96 means that if the null hypothesis being tested ($\mu_1 - \mu_2 = 0$) was false, then the researcher has a 96% chance of rejecting the null hypothesis, and a 4% chance of not finding the difference that would result in the rejection of the null hypothesis. In other words, when power = .96, the researcher had only a 4% chance of making a Type II error. However, when power = .05, if the null hypothesis were indeed false, then the researcher had a 5% chance of detecting a significant difference between sample means that would result in the rejection of the null hypothesis, and a 95% chance of not detecting a significant difference that actually exists. As seen in Appendix D, many of the power values were rather discouraging because they mean that, even if a null hypothesis were false, the researcher had little chance of detecting a significant difference between sample means that would negate the null hypothesis.

The most effective method for increasing power is to increase sample size (Howell, 1997). But a researcher often does not have the luxury of increasing his or her sample size. For example, suppose the researcher wanted to compare COWAT scores for the high and low identifiers within the prejudiced condition. In a situation where there is no way to estimate the desired effect size, Cohen (1988) provided a guideline that helps a researcher estimate power for small (.20), medium (.50) and large (.80) effect sizes (d). These effect sizes can be used to estimate the required sample size needed to set power at a desired level. Using established formulae for estimating required sample size for a desired effect size (see Howell, 1997), it is estimated that, if the researcher set power = .80, when d = .20 (small effect size), then the researcher would need 392 participants (N/2 = 196). In other words, if the researcher, when comparing the high and low identifiers within the prejudiced condition, wanted an 80% chance of finding a significant difference for a small effect size between sample means that actually exists, the researcher would need 196 participants per cell. If the researcher wanted a 90% chance of rejecting the H_o, the researcher would need even more participants per cell: 264. Thus, increases in power are bought by increases in N and, at high levels of power, the cost can be exorbitant, and too steep to be practical. In conclusion, as reported in Appendix D, the numerous low power values severely restricts the amount of confidence that a researcher has in

declaring that a non-significant finding is accurate.

4.5 Implications, Future Directions and Conclusion

An assortment of theories were discussed in the literature review that, taken together, might have predicted that the high Metis identifying students would likely react more negatively to a non-Aboriginal person than a low identifying individual. The locus of control theories might suggest that a Metis student who suspects that a White person harbours negative attitudes about Aboriginal people might, at least at the moment, have an external locus of control, believing that an unfriendly outsider is controlling his or her chances of success. Advocates of those theories involving stereotype threat might argue that a Metis student who suspects that a White person harbours any number of stereotypes about Aboriginal people (e.g., less educated, less reliable or motivated) might become very nervous about possibly confirming a prejudiced person's stereotypes. Researchers who study "intergroup anxiety" might hypothesize that a Metis person, when interacting with a non-Aboriginal person of authority, would become anxious to the point of distraction. The concept of mutual stereotyping might imply that the Metis students are harbouring their own invisible world of stereotypes against non-Aboriginals and, as a result, are swimming for their lives against two concurrent streams: their beliefs about the kind of stereotypes that non-Aboriginals harbour against them as well as their own stereotypes about non-Aboriginal Canadians.

When addressing the issue of mutual stereotyping some might suggest that stereotyping, regardless of its direction, is equally wrong. However, when addressing the question of mutual stereotyping, it must be remembered Aboriginal people are generally entering the interaction from the perspective of the less powerful. In other words, the discourse of the colonizer will be radically different than the discourse of the colonized. The colonizer will interpret asymmetries of power and privilege differently than those who are denied power and privilege, and the flow of frustration, injustice, and animosity will play out strongly in the discourse of the colonized. Although many will condemn stereotyping regardless of its direction, it must be kept in mind that, even though the deepest stereotypes will drive wedges between people, the stereotypes of Aboriginal people will be from the perspective of the colonized, which embody decades, if not centuries, of mistrust towards the colonizer. In short, the stereotypes harboured by the colonizer towards the colonized will play out differently, with those of the latter developed from a much more defensive position. At any rate, the Metis might have their own opinions about

non-Aboriginals, some positive, others negative, where their (perhaps honestly earned) negative opinions is yet another form of stress driving a wedge between themselves and other Canadians. Just as it is important to understand how non-Aboriginals view the Metis, it is also important for future research understand how the Metis view and understand other Canadians.

The expectancy/value theory of achievement motivation asserts that performance is directly related to achievement motivation and expectations, as well as the value an individual places on obtaining a particular goal. According to social identity theory, group identity lies on a continuum, where some individuals can be described as high (or strong) identifiers, while others are less devoted to their social identity, and can be described as low (or weak) group identifiers.

One factor known to influence school achievement is prejudice. Its victims can experience any number of reactions: apprehension, resentment, distraction; a potential victim might become overly-vigilant about the possibility of a threat occurring; the individual can take longer to build trust for another, different social group, whose members are suspected of harbouring negative beliefs and stereotyped toward his/her group. Individuals who are subject to prejudice can experience any number of reactions including apprehension, resentment, distraction. A potential victim of prejudice might become overly-vigilant about the possibility of a threat occurring. The individual can take longer to build trust for another and for different social group, whose members are suspected of harbouring negative beliefs and stereotyped toward his/her group. Tying all of this together, when a Metis student (a member of an allegedly stigmatized social group) finds him or herself in a situation where the individual is at the beck-and-call of someone who might harbour prejudice, the Metis student might experience a cluster of negative thoughts and feelings (e.g., stereotype threat, intergroup anxiety, loss of a sense of control, reciprocal stereotyping), all of which can ultimately limit how he or she performs in school. On the one hand, the individual might show less enthusiasm and class involvement; the individual might suspect that his or hers teacher sees him or her as a lame duck in need of benevolence and preferential treatment; individuals might spend their day wondering if, at any moment, a threat will spring out at them. In more extreme cases, the subject of prejudice might simply throw his or her arms up in disgust and leave school.

In the present study, when the possibility of prejudice appeared to exist (the prejudiced condition), the students (quite apart from the strength of their Metis identity) reported lower expectations of being able to obtain a goal, reduced motivation to work to capacity, and a

tendency to evaluate/stereotype those with prejudiced view more negatively. However, although the influence of Metis identity was not as pervasive as some might expect, it does have its place in the narrative: compared to low identifiers, high Metis identifiers reported more motivation; they also reported a more positive overall attitude on the total score of the Selection Attitudes (SA) Scale. One finding which may seem, at least on the surface, as an oddity, but upon further deliberation is not, is that some potential high identifying victims defy expectations, steel their spines, and display an "I'll show you attitude" to prejudiced others. We are reminded that Metis students need not be cast in the role of perpetual victims, and are not simply at the beck-and-call of the expectations and attitudes of their parents, friends, and teachers. As noted by Bandura (1979), self-efficacy, or your belief in your own ability to deal with whatever life throws your way, can play a role in not only how you feel about yourself, but whether or not you successfully achieve your goals in life. But self-efficacy does not just arise spontaneously. Although a parent or teachers pessimistic expectations can help drag back a person's motivation, giving verbal encouragements helps people overcome self-doubts and focus on giving their best effort to the task at hand. This is one reason why it is important for educators to be aware of their attitudes about their Aboriginal students: they can influence their students for the worse or better.

Similarly, social modeling or witnessing our people similar to oneself succeed by sustained effort can raise an observer's belief that they too possess the ability to master a task (Bandura, 1979). This is a good reason why it is important for Metis students to have role models to follow. They can be reminded that, even though they might face certain challenges, they too can perform and succeed at a high level, provided that they believe in themselves. Consequently, people are not just the product of their circumstances; people can improve their circumstances by their freely-chosen life choices.

Moreover, the circumstances of the Metis are improving. We have seen that the Metis are closing the long-standing educational and income gaps between themselves and other Canadians. It can also be seen that Canadian universities recognize the need to make their campuses more welcoming to all students. For example, the University of Saskatchewan recently hosted a national forum on Aboriginal education (Warren, 2015). The calls for change include degrees in Aboriginal languages; adequate funding for the backlog of Aboriginal students seeking higher education; and support for educators to incorporate more traditional knowledge in the classroom.

Since language is a key to an Aboriginal sense of distinctiveness, the University is trying to develop language programs in Dene, Ojibway, Dakota, Cree, and Mechif for the Metis.

We often assume that the Metis, who, admittedly, are still digging their way out from a legacy of neglect and prejudice, regard themselves as more different from than similar to other Canadians. We also assume that, since the Metis have experienced prejudice in the past, they are still weighed down by chronic, unrelenting pressure. But perhaps this is becoming its own stereotype of sorts. Perhaps the Metis feel much more comfortable with the "colonizing culture" than we realize, and perhaps the "colonizing culture" has grown much more comfortable with the Metis. At the end of the day, perhaps the two camps are again learning to meet in the middle and accept each other. At any rate, the Metis students involved in the present study did not seem to be particularly wary of the so-called White person in the absence of being directly antagonized.

The present study leads to numerous suggestions and avenues for research. It must be remembered that the Metis are a distinct people. Future research should focus on the unique experiences of the Metis people as separate from First Nations people. Current research tends to fuse together the experiences of the Metis and First Nations people, often to the point where it is assumed that the experiences of First Nations people easily generalize to the Metis. Undoubtedly there are some gaps in education and earnings between the Metis and other Canadians, but these differences are often exaggerated in the public mind. Although prejudice and discrimination can hurt academic performance, most of the research in the area involves American studies, with a strong emphasis on Blacks and Latinos, not Canadian studies, and certainly not studies that focus on the Metis in Western Canada or, even more specifically, Saskatchewan, or even more specifically yet, Northern, Central, or Southern Saskatchewan. The dearth of research on the Metis leaves open the question of the extent to which prejudice and discrimination are a problem for the Metis. There are many reasons why a person might fail to begin or complete his or her education: money problems and no family history (or culture) of attending university are at the top of many lists. Racism may also play a role. The *Aboriginal Peoples Survey* (2012) reported that 39% of Aboriginal high school leavers cited "racism" as a factor in leaving school behind. This, of course, means that racism might not be a particularly big problem for 61% of respondents or, when it is encountered, many victims know how to positively cope with it. Perhaps a concern with prejudice does not rank particularly high on the list of concerns for many Metis people.

One is reminded that Metis identity is a fluid concept. It is a concept that is not only being defined by the Metis people themselves, but it is also being defined by Canadian courts. It was noted earlier that in the *R. v. Powley* (2 SCR, 2003) case, the Supreme Court of Canada (SCC) offered guidance to clarify the legal definition of "Metis" in order to identity a Metis rights-holder under s. 35 of the *Constitution Act*. The SCC outlined three broad factors or criteria to help identify Metis rights-holders: (1) self-identification as a Metis individual; (2) ancestral connection to an historic Metis community; and (3) acceptance by a Metis community. However, the recent *Daniels* case (*Daniels v Canada* [2013] F.C.R. 6) has profound implications for the nature of Metis identity. The case was initiated by the late Saskatchewan Metis leader Harry Daniels more than a decade ago to make Canada revisit its exclusionary policies toward the Metis and "non-status" Indians (i.e., members of First Nations who cannot be registered under the *Indian Act*). In 2013, the Federal Court of Canada ruled that Metis and Non-status Indians are Indians under s. 91(24) of the *Constitution Act*, 1867. The federal government appealed. In 2014, the Federal Court of Appeal upheld the 2013 ruling which held that the Metis can be considered to be Indians for the purposes of s. 91(24). The case will be ultimately heard by the Supreme Court of Canada (SCC). If the case is upheld by the SCC, the implication will be that the Metis are Indians within s. 91(24) of the *Constitution Act* (1897) entitled to the same rights and entitlements as Canada's First Nations people. If upheld, the Metis might not be as distinctive a people as many Metis claim to be.

In conclusion, the Metis are working hard to maintain their identity, and are building on a solid record of achievement. Although at one time many Metis preferred to keep themselves at arms-length from the flood of newcomers, today's Metis are more easily adapting to mainstream Canadian culture. The rule of thumb is simple: more education translates into higher income. And university is the most financially rewarding decision a Metis person can make. But, as noted earlier, in Saskatchewan, only about 6% of Metis residents have a university degree and, at the University of Saskatchewan, in 2011/2012, the second year retention rate for Metis students was 68% compared to nearly 80% for non-Aboriginal students. In 2011/2012, about 641 self-declared Metis students entered their first year of university in Saskatchewan. About 206 Metis students were lost to the university before entering their second year. Since there was a 12% second year retention gap between the Metis students and the total student population, this means that if about 77 more Metis students can be convinced to return to university for their second year, the

retention gap would close. Convincing 77 of about 641 Metis students to stay in university after their first year seems to be within easy reach. The concurrent goal is to encourage even more Metis to attend university in the first place.

While prejudice exists on Canadian campuses, we must be careful about over-stating the case about the role of prejudice in a person's life. There are many potential reasons why students do not see their schooling through to the end. We must also remember that being a stigmatized group might not be carved-in-stone for all time. Some groups (e.g., Italian, Chinese or Irish immigrants) might have been quite stigmatized at one point in time in some places, but times change and a group that was previously held in low regard might become accepted and well-regarded. Furthermore, stigmatization is a matter of degree. The claim that the Metis are a traditionally stigmatized people, whose members are well-aware of their undervalued status often feels to be a stereotype of sorts. It might be a generalization to assume that all Aboriginal groups experience the same type and amount of discrimination, and that prejudice plays a significant role in the lives of the Metis. Hopefully, the present study will encourage other Metis students to examine the school experiences of Metis students to learn how important prejudice, as an objective or perceived phenomenon, is to their academic lives.

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6.0 APPENDIX A: 2 X 3 Collapsed into 2 X 2

6.1 Performance on the Controlled Oral Word Association Test (COWAT) by Gender, Background and Collapsed Prejudice Factor

The primary analysis took a 2 X 3 approach. The present analysis takes a 2 X 2 approach, where the three levels of the prejudice factor (prejudiced, unknown attitudes, non-prejudiced) are collapsed into two levels (prejudiced, non-prejudiced).

An analysis of variance (ANOVA) was conducted to examine performance on the COWAT by gender, background (urban, rural) and the collapsed prejudice factor. As seen in Table 6.1, there were no significant interaction or main effects. Earlier, in section 3.3.2, it was reported that there was a main effect for background.

Table 6.1

Controlled Oral Word Association Test (COWAT) in Relation to Gender, Background, and Collapsed Prejudice Factor

Variable	*DF*	*F*	Sig	η^2
Gender	1,152	.02	.86	-
Background (urban/rural)	1,152	2.3	.13	-
Prejudice factor	1,152	.17	.68	-
Gender X Background	1,152	2.3	.13	-
Gender X Prejudice	1,152	.44	.50	-
Background X Prejudice	1,152	1.8	.17	-
Gender X Background X Prejudice	1,152	1.1	.30	-

6.1.1 Performance on the Controlled Oral Word Association Test (COWAT) by High and Low Metis Identifiers and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine the effect of Metis identity (high and low) and the collapsed prejudice factor (prejudiced, non-prejudiced) on the number of words produced on the COWAT. There was no significant interaction effect between Metis identity and the prejudice factor on the COWAT, F (1,160) = .01, p = .91. There was no significant main effect for identity, F (1,160) = .03, p = .85. Nor was there a main effect for prejudice, F (1,160) = .93, p = .33. These findings are consistent with those reported in section 3.3.3.

6.1.2 Performance on the Selection Attitudes (SA) Scale by Gender, Background and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the Selection

Attitudes (SA) Scale by gender, background (urban, rural) and the collapsed prejudice factor. As seen in Table 6.2, there were no significant interaction effects. Nor were there any significant main effects. These findings are consistent with those reported in section 3.3.4.

Table 6.2

Selection Attitudes (SA) Scale in Relation to Gender, Background, and Collapsed Prejudice Factor

Variable	*DF*	*F*	Sig	η^2
Gender	1,150	.93	.33	-
Background (urban/rural)	1,150	.16	.68	-
Prejudice factor	1,150	1.4	.23	-
Gender X Background	1,150	1.5	.22	-
Gender X Prejudice	1,150	.10	.75	-
Background X Prejudice	1,150	.95	.33	-
Gender X Background X Prejudice	1,150	.00	.99	-

6.1.3 Performance on the Selection Attitudes (SA) Scale by High and Low Metis Identifiers and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the Selection Attitudes (SA) Scale by the high and low Metis identifiers and the prejudice factor. There was a significant interaction effect, F (1,160) = 6.1, p = .01. The subsequent post-hoc test indicated that the mean for the high identifiers (M = 50.2, SD = 12.5) was significantly larger than the mean for the low identifiers in the prejudiced condition (M = 43.8, SD = 7.3), t (55) = -2.0, $p < .05$. The finding showed that the high identifying Metis students within the prejudiced condition reported a more positive overall attitude on the SA Scale than did the how identifying students. There was a significant main effect for identity, F (1,160) = 12.2, $p < .001$. An examination of the grand means showed that the mean for the high identifiers (M = 50.6, SD = .82) was significantly larger than the mean for the low identifying students (M = 47.2, SD = 1.1). The finding indicated that, when the prejudice factor was ignored, the high identifying Metis students reported a more positive overall attitude on the SA Scale than the attitude reported by the low identifying students. The was a significant main effect for the prejudiced condition, F (1,160) = 7.0, $p < .01$, $\eta^2 = .04$. Subsequent examination of the means showed that the mean for the prejudiced condition (M = 47.0, SD = 1.2) was smaller than the mean for the non-prejudiced condition (M = 50.8, SD = .83). The finding showed that, when degree of identity was ignored, the students in the non-prejudiced condition reported a more positive overall attitude on the SA

Scale than the students in the prejudiced condition. The findings are consistent with those reported in section 3.3.6.

6.1.4 Performance on the Expectations Subscale by Gender, Background and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the expectations subscale of the Selection Attitudes (SA) Scale by gender, background (urban, rural) and prejudice factor. As seen in Table 6.3, there was a significant gender X background interaction, F (1, 151) = 7.1, $p < .01$, $\eta^2 = .05$. Post hoc examination of the means showed that the mean for the urban female students (M = 10.6, SD = 2.7) was significantly larger than the mean for the urban male students (M = 8.4, SD = 3.3), t (64) = .01, $p < .01$. The finding showed that the urban females had a more positive expectation about being hired than the male urban students. There was a significant main effect for the prejudice factor, F (1, 151) = 7.3, $p < .01$, $\eta^2 = .05$. Examination of the means showed that the mean for the non-prejudiced condition (M = 10.3, SD = .38) was significantly larger than the mean for the prejudiced condition (M = 8.6, SD = .47). The finding showed that the students in the non-prejudiced condition showed a more positive expectation about being hired than did the students in the prejudiced condition. The findings are consistent with those reported in section 3.3.5.

Table 6.3

Expectations Subscale in Relation to Gender, Background, and Collapsed Prejudice Factor

Variable	*DF*	*F*	Sig	η^2
Gender	1,151	1.1	.30	-
Background (urban/rural)	1,151	.03	.95	-
Prejudice factor	1,151	7.3	.01	.05
Gender X Background	1,151	7.1	.01	.05
Gender X Prejudice	1,151	.12	.72	-
Background X Prejudice	1,151	1.7	.19	-
Gender X Background X Prejudice	1,151	1.9	.17	-

6.1.5 Performance on the Expectations Subscale by High and Low Metis Identifiers and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the expectations subscale by the high and low Metis identifiers and the prejudice factor. There was not a significant interaction between identity and the prejudiced factor, F (1,161) = .48, p = .49. There

was no significant main effect for identity, F (1, 161) = 2.9, $p < .09$. There was a significant main effect for the collapsed prejudice factor, F (1,161) = 16.8, $p < .005$. Examination of the means showed that the mean for the non-prejudiced condition (M = 10.6, SD = .32) was larger than the mean for the prejudiced condition (M = 8.3, SD = .43). The finding showed that, when degree of identity was ignored, the students in the non-prejudiced condition had a more positive expectation about being hired than did the students in the prejudiced condition. The findings are consistent with the findings reported in section 3.3.8.

6.1.6 Performance on Motivation Subscale by Gender, Background and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the motivation subscale of the Selection Attitudes (SA) Scale by gender, background (urban, rural) and degree of prejudice (prejudiced, non-prejudiced). As seen in Table 6.4, there were no significant interaction effects. There was a main effect for the prejudice factor, F(1,151) = 12.2, p = .01, η^2 = .04. An examination of the grand means showed that the mean for the prejudice group (M = 12.2, SD = .27) was larger than the mean for the non-prejudice condition (M = 11.2, SD = .33). The finding showed that the students in the prejudiced condition reported more motivation than did the students in the non-prejudiced condition. This finding is somewhat different than the finding reported in section 3.3.5, where there were no significant effects.

Table 6.4

Motivation Subscale in Relation to Gender, Background, and Collapsed Prejudice Factor

Variable	*DF*	*F*	Sig	η^2
Gender	1,151	.86	.35	-
Background (urban/rural)	1,151	.81	.37	-
Prejudice factor	1,151	12.2	.01	.04
Gender X Background	1,151	.92	.34	-
Gender X Prejudice	1,151	.19	.66	-
Background X Prejudice	1,151	.63	.43	-
Gender X Background X Prejudice	1,151	.01	.93	-

6.1.7 Performance on the Motivation Subscale by High and Low Metis Identifiers and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the motivation subscale by the high and low Metis identifiers and the prejudice factor. There was not an identity

X prejudice interaction effect, F (1,162) = .18, p = .67. There was a main effect for identity, F (1,162) = 12.8, p = .001. An examination of the grand means showed that the mean for the high identifiers (M = 12.5, SD = 1.7) was larger than the mean for the low identifiers (M = 11.4, SD = 2.4). The finding showed that, when the prejudiced factor was ignored, the high identifiers reported more motivation than did the low identifiers. There was a main effect for the collapsed prejudice factor, F (1,162) = 9.0, p = .003, η^2 = .05. An examination of the grand means showed that the mean for non-prejudice condition (M = 12.3, SD = 2.0) was significantly larger than the mean for the prejudiced condition (M = 11.2, SD = 2.2). The finding showed that, when degree of identity was ignored, the students in the non-prejudice condition reported more motivation than did the students in the prejudiced condition. The findings are consistent with the findings reported in section 3.3.8.

6.1.8 Performance on the Fairness Subscale by Gender, Background and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the fairness subscale by gender, background (urban, rural) and degree of prejudice (prejudiced, non-prejudiced). As seen in Table 6.5, there were no significant interaction effects. Nor were there any significant main effects. The findings are consistent with those reported in section 3.3.9

Table 6.5

Fairness Subscale in Relation to Gender, Background, and Collapsed Prejudice Factor

Variable	*DF*	*F*	Sig	η^2
Gender	1,151	.12	.72	-
Background (urban/rural)	1,151	.03	.86	-
Prejudice factor	1,151	.01	.96	-
Gender X Background	1,151	.19	.67	-
Gender X Prejudice	1,151	.62	.43	-
Background X Prejudice	1,151	.67	.41	-
Gender X Background X Prejudice	1,151	.01	.92	-

6.1.9 Performance on the Fairness Subscale by High and Low Metis Identifiers and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the fairness subscale of the Selection Attitudes (SA) Scale by the high and low Metis identifiers within the two prejudice conditions. There was no significant identity X prejudice interaction

effect, F (1,162) = .02, p = .88. There was not a main effect for identity, F (1,162) = 1.5, p = .22. There was not a main effect for the prejudice factor, F (1,162) = .001, p = .98. The findings are consistent with those reported in section 3.3.9.

6.1.10 Performance on the Stereotyping of Whites (SW) Scale by Gender, Background, and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the Stereotyping of Whites (SW) Scale by gender, background (urban, rural) and degree of prejudice (prejudiced, non-prejudiced). As seen in Table 6.6, there were no significant interaction effects. There was a main effect for the prejudice factor, F (1,136) = 21.4, p = .005, η^2 = .14. A post hoc examination of the means showed that the mean for the prejudiced condition (M = -2.2, SD = 7.3) was lower than the mean for the non-prejudiced condition (M = 4.2, SD = 6.3), t (144) = -5.5, p = .005. The finding showed that, while the students in the prejudiced condition negatively stereotyped the manager, the students in the non-prejudiced condition held a more a more favourable opinion. The findings are consistent with those reported in section 3.3.10.

Table 6.6

Stereotyping of Whites (SW) Scale in Relation to Gender, Background, and Collapsed Prejudice Factor

Variable	DF	F	Sig	η^2
Gender	1,136	.52	.47	-
Background (urban/rural)	1,136	.10	.74	-
Prejudice factor	1,136	21.4	.005	.14
Gender X Background	1,136	.01	.91	-
Gender X Prejudice	1,136	.02	.88	-
Background X Prejudice	1,136	.60	.44	-
Gender X Background X Prejudice	1,136	.32	.57	-

6.1.11 Performance on the Stereotyping of Whites (SW) Scale by High and Low Metis Identifiers and Collapsed Prejudice Factor

A 2 x 2 analysis of variance was conducted to examine performance on the Stereotyping of Whites (SW) Scale by the high and low Metis identifiers. There was not a significant identity (high, low) X condition (prejudiced, non-prejudiced) interaction effect, F (1,143) = 2.0, p = .15. There was no significant main effect for identity, F (1,143) = .01, p = .94. There was a significant main effect for the prejudice factor, F (1,143) = 30.0, p = .005, η^2 = .18. An examination of the means showed that the mean for the prejudiced group (M = -2.2,

SD = .73) was significantly lower than the mean for the non-prejudiced group (*M* = 4.1, *SD* = 6.4). The finding indicated that, while the students in the prejudiced condition tended to negatively stereotype the White manager, the students in the non-prejudiced condition tended to evaluate the manager more favourably. The findings are consistent with those reported earlier.

7.0 Appendix B: Regression Analysis

7.1 Predicting Controlled Oral Word Association Test (COWAT) Scores from Demographic Variables and Scale Scores

Although it is suggested that a regression analysis only be conducted where there is a significant relationship between a dependent variable and its independent variables (Tabachnick & Fidell, 1996), an additional regression analysis was conducted where the relationship between a dependent variable and various independent variables was explored regardless of whether or not the correlations were significant. To examine the relationship between the COWAT and the various variables used in the present study, a hierarchical regression analysis was conducted. Hierarchical regression can test two models in sequence to assess whether a second set of variables predicts scores on a dependent variable above and beyond the effects of the first set of predictors. The first set of predictors included demographic variables: age, gender, background, years of post-secondary education, and prejudice factor. The second set of predictors included the various measures used in the study: Controlled Oral Word Association Test (COWAT); Metis Identity (MI) Scale, Selection Attitudes (SA) Scale, and the Stereotyping of Whites (SW) Scale.

Table 7.1 reports the correlation matrix between the COWAT and the various variables. As seen in the table, there were five significant correlations.

Table 7.1

Correlations Among Demographics and Psychometric Measures with COWAT as Dependent Variable

	1	2	3	4	5	6	7	8	9
1. COWAT	-								
2. Age	-.07	-							
3. Gender	.05	-.07	-						
4. Urban/Rural	.10	-.02	.06	-					
5.Post-secondary	.12	.12	.05	-.01	-				
6. Prejudice factor	-.02	-.07	-.01	.01	.01	-			
7. Metis Identity	-.04	-.08	-.04	-.01	.15*	-.01	-		
8. Selection Attitudes	.16*	-.15*	.05	-.01	-.10	.05	.12	-	
9. Stereotyping	.04	-.05	-.07	-.02	-.02	.40***	.03	.29***	-

* $p < .05$

*** $p < .001$

Table 7.2 shows that neither the first model (demographic variables alone) nor the second model (demographics plus scale scores) predicted scores on the COWAT to a statistically significant degree.

Table 7.2

Multiple Regression of Demographic Variables and Scale Scores on the Controlled Oral Word Association Test

	DF	*F*	p
Model 1. Demographics	5,131	.91	.47
Model 2. Scale scores	8,131	1.2	.30

Table 7.3 reports the change statistics for the two models. As seen in the table, adding the second model did not account for significantly more variance in the COWAT over and above the effects of the demographics.

Table 7.3

Multiple Regression. Change Scores for Two Models

Model	R	R^2	Adjusted R^2	SE	R^2 Change	F Change	DF	p
1. Demographics	.18	.03	-.003	11.5	.03	.91	5,126	.47
2. Scale scores	.27	.07	.01	11.4	.04	1.6	3,123	.17

Table 7.4 reports the standardized beta coefficients and test of significance for each of the independent variables. Although the second set of predictors did not significantly predict COWAT scores, the Selection Attitudes (SA) Scale alone did make a significant contribution to the prediction.

Table 7.4

Multiple Regression. Standardized Beta and Tests of Significance

Model		Standardized Beta	*t*	*p*
1	Age	-.09	-1.0	.30
	Gender	-.01	-.19	.85
	Background	.10	1.1	.25
	Years of education	.14	1.6	.11
	Prejudiced condition	-.01	-.12	.90
2	Age	-.07	-.88	.38
	Gender	-.03	-.37	.71
	Background	.10	1.2	.23
	Years of education	.17	1.9	.06
	Prejudiced condition	-.02	-.21	.83
	Metis Identity	-.10	-1.1	.26
	Selection Attitudes	**.18**	**.19**	**.05**
	Stereotyping of Whites	.03	.03	.97

7.1.2 Predicting Motivation from Demographic Variables and Scale Scores

Theorists have long emphasized the importance of motivation in task performance. Motivation is the initiation, intensity, or persistence of goal-directed behaviour (Eccleston & Major, 2010).

To examine the relationship between motivation and the different variables used in the present study, a hierarchical regression analysis was conducted. The first set of predictors included demographic variables: age, gender, background, years of post-secondary education, and prejudice factor. The second set of predictors include the scales used in the study: Controlled Oral Word Association Test (COWAT), Metis Identity (MI) Scale, Selection Attitudes (SA) Scale, and the Stereotyping of Whites (SW) Scale.

Table 7.5 reports the correlation matrix between motivation and the various variables. As seen in the table, there were seven significant correlations.

Table 7.5

Correlations Among Demographics and Psychometric Measures with Motivation as Dependent Variable

	1	2	3	4	5	6	7	8	9
1. Motivation	-								
2. Age	-.16*	-							
3. Gender	.11	-.07	-						
4. Urban/Rural	.05	-.02	.06	-					
5.Post-secondary	-.07	.12	.05	-.01	-				
6. Prejudice factor	.14*	-.07	-.01	.01	.01	-			
7. Metis Identity	.08	-.07	-.07	-.02	.16*	-.05	-		
8. Selection Attitudes	.42***	-.15*	.05	-.01	-.10	.05	.12	-	
9. Stereotyping	.06	-.07	-.07	-.03	-.10	.40***	.07	.29***	
10. COWAT	.16	.05	.05	.10	-.12	-.02	-.02	.16	-

* $p < .05$

*** $p < .001$

Table 7.6 shows that the first model (demographics alone) did not predict motivation. However, the second model (demographics plus scale scores) predicted motivation scores to a statistically significant degree, F (8,131) = 4.3, $p < .005$.

Table 7.6

Multiple Regression of Demographic Variables and Scale Scores on Motivation

	DF	*F*	*p*
Model 1. Demographics	5,131	1.6	.15
Model 2. Scale scores	8,131	4.3	.005

Table 7.7 reports the change statistics for the two models. As seen in the table, adding the second model accounted for significantly more variance in motivation over and above the effects of the demographics (a difference of 18%).

Table 7.7

Stepwise Multiple Regression. Change Scores for Two Models

Model	R	R^2	Adjusted R^2	SE	R^2 Change	F Change	DF	p
1. Demographics	.24	.06	.02	2.1	.06	1.6	5,126	.16
2. Scale scores	.49	.24	.18	1.9	.18	7.3	4,122	.05

Table 7.8 reports the standardized beta coefficients and tests of significance for each of the independent variables. In Model 2, both the prejudice factor and the Selection Attitudes (SA) Scale made a significant contribution to the prediction of reported motivation.

Table 7.8

Multiple Regression. Standardized Beta and Tests of Significance

Model		Standardized Beta	*t*	*p*
1	Age	-.13	-1.5	.12
	Gender	.10	1.1	.23
	Background	.04	.49	.62
	Years of education	-.06	-.70	.48
	Prejudice factor	.13	1.5	.11
2	Age	-.06	-.82	.41
	Gender	.07	.96	.33
	Background	.04	.45	.65
	Years of education	-.05	-.62	.53
	Prejudice factor	**.17**	**2.0**	**.05**
	COWAT	.10	1.2	.21
	Metis Identity	.05	.64	.52
	Selection Attitudes	**.41**	**4.8**	**.05**
	Stereotyping of Whites	-.13	-1.5	.13

8.0 Appendix C: Power Analyses

When performing a binary hypothesis test, the researcher must be aware of the possibility of two types of error: (1) Type 1 error, where the researcher finds a difference that does not exist, and (2) Type II error, where the researcher fails to find a difference that does exist.

The power analyses were conducted using the Univariate Analysis procedure in the Statistical Package of the Social Sciences (SPSS 22). Table 8.1 reports the observed power for 11 of 18 non-significant findings that were reported in the Results section. The researcher was primarily interested in comparing the performance of the high and low Metis identifiers within three prejudice conditions. An analysis of variance (ANOVA) reported both interaction and main effects. The table reports the observed power when there was not a statistically significant interaction or main effect. The lowest power value was .05, the highest, .96. When power = .05, if the null hypothesis was actually false, the researcher only had a 5% chance of rejecting the H_o, and a 95% chance of not detecting a difference between sample means. When power = .96, if the H_o was false, then the researcher had a 96% chance of detecting a significant difference and only a 4% chance of not detecting a difference. Power = .96 points to the fact that, the higher the power, the greater confidence the researcher had that a reported rejection of the H_o was correct. Many of the power findings reported in Table 8.1 are discouraging because they indicate that when the H_o might be rejected, the researcher was likely to accept it.

A strategy for increasing power is to increase alpha. Table 8.2 reports the observed power when the critical value is raised from .05 to .10. As seen in the table, increasing the critical value from .05 to .10 had the effect of increasing the observed power for each of the subscale scores where a significant effect was not found. For example, on the COWAT for a Metis identity main effect, power increased from .05 to .10, indicating that the researcher now had a 10% chance of rejecting the null hypothesis. However, increasing alpha comes with a caution: when the researcher increases alpha, although there is in increase in power, there is also a corresponding rise in the probability of a Type I error.

Table 8.3 reports the observe power when the 2 X 3 was collapsed into a 2 X 2. Two of the prejudiced conditions were collapsed into one condition in order to try and improve power. As seen in the table, the power values were still relatively low indicating that, for a non-significant finding, there was still a high probability of a Type II error.

Table 8.1

Observed Power for Performance on Scales by Metis Identity and Prejudice Factor for p = .05

	Observed Power
COWAT	
Prejudice factor	.25
Metis identity	.05
Prejudice X Identity	.06
Selection Attitudes Scale	
Prejudice factor	.50
Metis Identity	-
Prejudice X Identity	-
Expectations subscale	
Prejudice factor	.96
Metis identity	-
Prejudice X Identity	-
Motivation subscale	
Prejudice factor	-
Metis identity	-
Prejudice X Identity	.08
Fairness subscale	
Prejudice factor	.12
Metis identity	.38
Prejudice X Identity	.05
Stereotyping of Whites Scale	
Prejudice factor	-
Metis identity	.12
Prejudice X Identity	.27

Table 8.2

Observed Power for Performances on Scales by Metis Identity and Prejudice Factor for p = .10

	Observed Power
COWAT	
Prejudice factor	.36
Metis identity	.10
Prejudice X Identity	.12
Selection Attitudes Scale	
Prejudice factor	.63
Metis Identity	-
Prejudice X Identity	-
Expectations subscale	
Prejudice factor	-
Metis identity	.47
Prejudice X Identity	.20
Motivation	
Prejudice factor	-
Metis identity	-
Prejudice X Identity	.15
Fairness	
Prejudice factor	.21
Metis identity	.51
Prejudice X Identity	.10
Stereotyping of Whites	
Prejudice factor	-
Metis identity	.20
Prejudice X Identity	.40

Table 8.3

Observed Power for Performance on Scales by Metis Identity and Collapsed Prejudice Factor

	Observed Power
COWAT	
Prejudice factor	.16
Metis identity	.05
Prejudice X Identity	.05
Selection Attitudes Scale	
Prejudice factor	-
Metis Identity	-
Prejudice X Identity	-
Expectations subscale	
Prejudice factor	-
Metis identity	.40
Prejudice X Identity	.11
Motivation	
Prejudice factor	-
Metis identity	-
Prejudice X Identity	.10
Fairness	
Prejudice factor	.05
Metis identity	.36
Prejudice X Identity	.05
Stereotyping of Whites	
Prejudice factor	-
Metis identity	.06
Prejudice X Identity	.30

9.0 Appendix D. Scales Used in Present Study

9.1 Selection Attitudes (SA) Scale

We would like you to circle the response which indicates your level of approval. There are no right or wrong answers so please respond anyway you would like.

1. I expect that the manager's impression of me will be a positive one,

Not at all	2	3	Neutral	5	6	Very much

2. I believe the manager will hire me.

Not at all	2	3	Neutral	5	6	Very much

3. It is important to me to be hired.

Not at all	2	3	Neutral	5	6	Very much

4. Whether I am selected as co-manager will not have an effect on me

Not at all	2	3	Neutral	5	6	Very much

5. It doesn't matter to me one way or the other if I am chosen as co-manager.

Not at all	2	3	Neutral	5	6	Very much

6. I felt motivated to perform well on the task

Not at all	2	3	Neutral	5	6	Very much

7. I tried as hard as I could to do well on this task.

Not at all	2	3	Neutral	5	6	Very much

8. I believe that the manager's judgments of me will be biased.

Not at all	2	Neutral	4	Very much

9. I believe that the manager will act justly toward me.

Not at all	2	Neutral	4	Very much

10. I believe that the manager will judge my work fairly.

Not at all	2	Neutral	4	Very much

11. I believe that the manager's judgements of me will be impartial.

Not at all	2	Neutral	4	Very much

9.2 Stereotyping of Whites (SW) Scale

Please indicate (circle) the extent to which you believe that White people possess the following traits.

	Percentage %									
Calm	10	20	30	40	50	60	70	80	90	100
Uneducated	10	20	30	40	50	60	70	80	90	100
Clean	10	20	30	40	50	60	70	80	90	100
Boastful	10	20	30	40	50	60	70	80	90	100
Lazy	10	20	30	40	50	60	70	80	90	100
Loud	10	20	30	40	50	60	70	80	90	100
Passive	10	20	30	40	50	60	70	80	90	100
Sophisticated	10	20	30	40	50	60	70	80	90	100
Reliable	10	20	30	40	50	60	70	80	90	100
Spiritual	10	20	30	40	50	60	70	80	90	100
Considerate	10	20	30	40	50	60	70	80	90	100
Aggressive	10	20	30	40	50	60	70	80	90	100

Please rate how favourably you judge the following traits in the manager. Circle your choice.

	Favourability Rating										
	Very unfavourable										Very favourable
Calm	-5	-4	-3	-2	-1	0	1	2	3	4	5
Uneducated	-5	-4	-3	-2	-1	0	1	2	3	4	5
Clean	-5	-4	-3	-2	-1	0	1	2	3	4	5
Boastful	-5	-4	-3	-2	-1	0	1	2	3	4	5
Lazy	-5	-4	-3	-2	-1	0	1	2	3	4	5
Loud	-5	-4	-3	-2	-1	0	1	2	3	4	5
Passive	-5	-4	-3	-2	-1	0	1	2	3	4	5
Sophisticated	-5	-4	-3	-2	-1	0	1	2	3	4	5
Reliable	-5	-4	-3	-2	-1	0	1	2	3	4	5
Spiritual	-5	-4	-3	-2	-1	0	1	2	3	4	5
Considerate	-5	-4	-3	-2	-1	0	1	2	3	4	5
Aggressive	-5	-4	-3	-2	-1	0	1	2	3	4	5

9.3 Metis Identity (MI) Scale

We are all members of different social groups. We would like you to consider your identity as a Metis, and respond to the following questions in terms of how you feel about your Metis identity. There are no right or wrong answers so please respond anyway you would like. Your participation is anonymous and confidential. You can withdraw from the study at anytime and not hand in your questionnaire.

Gender (please circle): Male Female Background (please circle): Rural Urban

Age _____ Years of university education _____

Please circle the appropriate response.

1. Being a Metis is an important part of my self-image.

Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree

2. Being a Metis contributes to what kind of person I am.

Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree

3. Being a Metis has very little to do with how I feel about myself.

Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree

4. I identify with other Metis people.

Not at all	Somewhat	Moderately	Quite a bit	Extremely

5. I see myself as a Metis person.

Not at all	Somewhat	Moderately	Quite a bit	Extremely

6. I am glad to be a Metis.

Not at all	Somewhat	Moderately	Quite a bit	Extremely

7. I feel strong ties with the Metis people.

Not at all	Somewhat	Moderately	Quite a bit	Extremely

8. How much do you identify yourself as a Metis?

Not at all	Somewhat	Moderately	Quite a bit	Extremely